



ARI Research Note 91-01

Task Analysis and Workload Prediction Model of the MH-60K Mission and a Comparison with UH-60A Workload Predictions

Volume II: Appendixes A through G

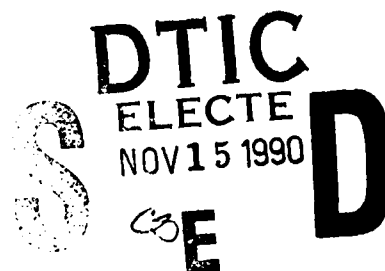
Carl R. Bierbaum and David B. Hamilton

Anacapa Sciences, Inc.

**Aviation R&D Activity at Fort Rucker, Alabama
Charles A. Gainer, Chief**

**Systems Research Laboratory
Robin L. Keese, Director**

October 1990



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**United States Army
Research Institute for the Behavioral and Social Sciences**

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19. ABSTRACT (Continue on reverse if necessary and identify by block number) → For this research, a mission scenario was used to conduct a comprehensive task analysis for MH-60K operations. The analysis used a top-down approach to identify 5 phases, 15 segments, 71 functions, and 230 tasks for the mission. Also, the crewmember performing each task was identified, and estimates of the task duration and the sensory, cognitive, and psychomotor workload associated with the tasks were derived. The mission/task/workload analysis data were used to develop a computer model of workload for MH-60K crewmembers. The model used a bottom-up approach to build mission functions from tasks and mission segments from functions. Decision rules were written to specify the procedure for combining tasks into functions and functions into segments. The model permitted an analysis of total workload experienced by the pilot and copilot in the performance of both sequential and concurrent tasks. The predicted workload for the MH-60K pilot and copilot was compared to the UH-60A baseline workload prediction to determine the impact of the MH-60K advanced technology. The comparison indicated very little difference in the predicted (Continued)					
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19. ABSTRACT (Continued)

workload for the pilot and lower predicted workload for the copilot in the MH-60K.

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TASK ANALYSIS AND WORKLOAD PREDICTION MODEL OF THE MH-60K MISSION
AND A COMPARISON WITH UH-60A WORKLOAD PREDICTIONS; VOLUME II:
APPENDIXES A THROUGH G

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TASK ANALYSIS AND WORKLOAD PREDICTION MODEL OF THE MH-60K
MISSION AND A COMPARISON WITH UH-60A WORKLOAD PREDICTIONS
VOLUME II: APPENDIXES A THROUGH G

INTRODUCTION

This three-volume report describes the methodology used to conduct a comprehensive task analysis of the MH-60K mission and the results of the analysis. Information provided by the MH-60K mission/task/workload analysis was used to establish a data base and to develop a computer model that predicts workload for the MH-60K pilot and copilot. Assessments of workload produced by the model are compared with the UH-60A baseline model to assess the impact on workload of the high technology modifications made in the MH-60K aircraft. The complete explanation of the Task Analysis/Workload (TAWL) methodology for performing the mission/task/workload analysis is contained in Volume I of this report.

The appendixes in Volume II present the results of exercising the UH-60A workload prediction model and the task analysis of the MH-60K mission scenario. The task/workload analysis and model construction phases of the UH-60A are described in a report by Bierbaum, Szabo, and Aldrich (1989). The graphs in Appendixes A and B present the workload predictions for the pilot and copilot for each of the 34 UH-60A mission segments. The graphs present the total workload for each of the six components for all tasks the crewmember is performing during each half-second of the mission segment. The diamond symbol at the end of each graph indicates the average workload of the component for the segment.

Appendixes C through G present the results of the task analysis of the MH-60K mission scenario:

- Appendix C summarizes the segments within each MH-60K mission phase,
- Appendix D presents an alphabetical list of the unique MH-60K mission functions,
- Appendix E summarizes the MH-60K functions within each mission segment,
- Appendix F presents an alphabetical list of the unique MH-60K tasks, and
- Appendix G presents the MH-60K Function Analysis Worksheets that summarize the workload data derived for each unique function.

The task analysis results were used in the construction of the MH-60K workload prediction model. The results of the model execution are presented in Volume III of this report.

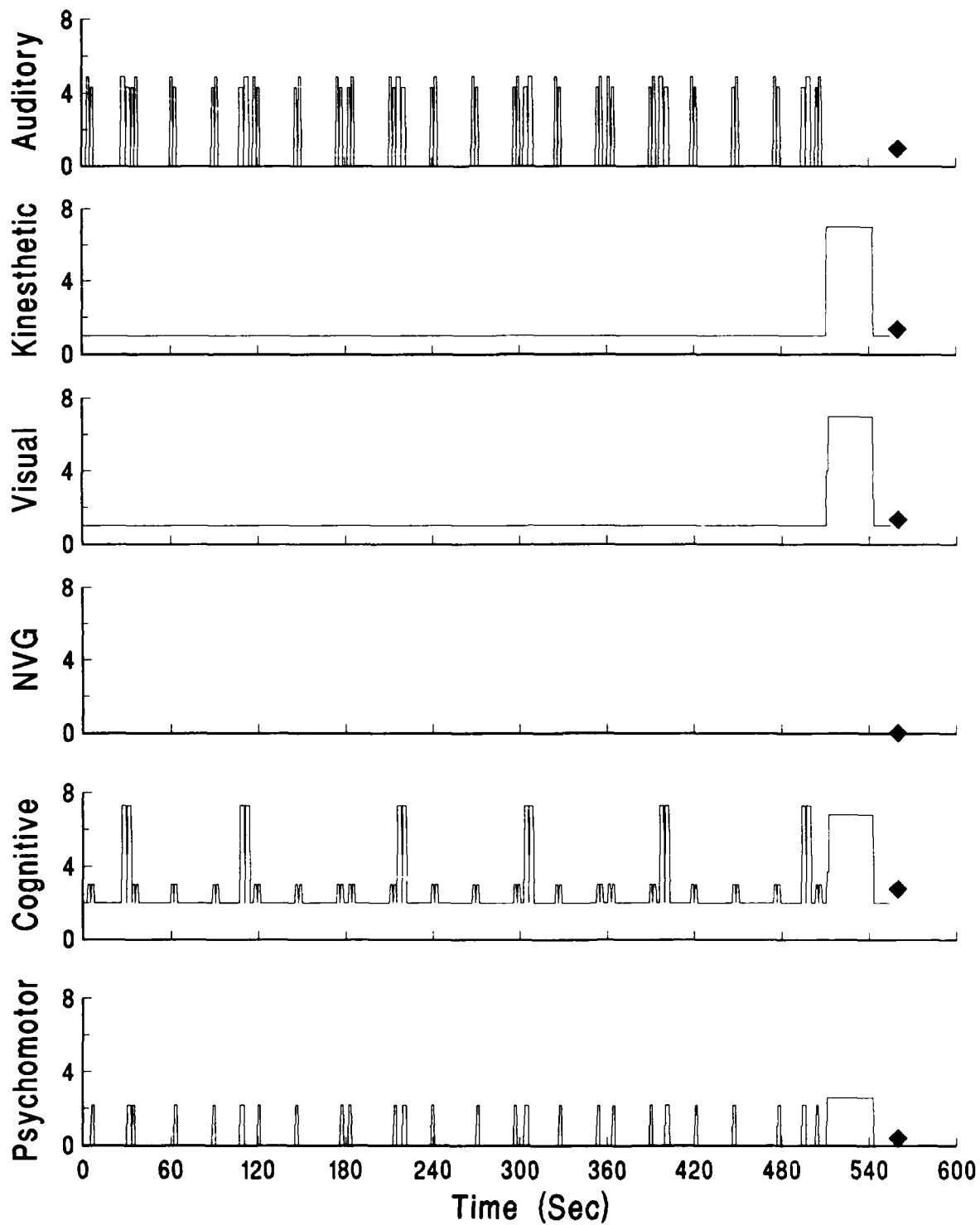
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UH-60A PILOT WORKLOAD PREDICTION GRAPHS

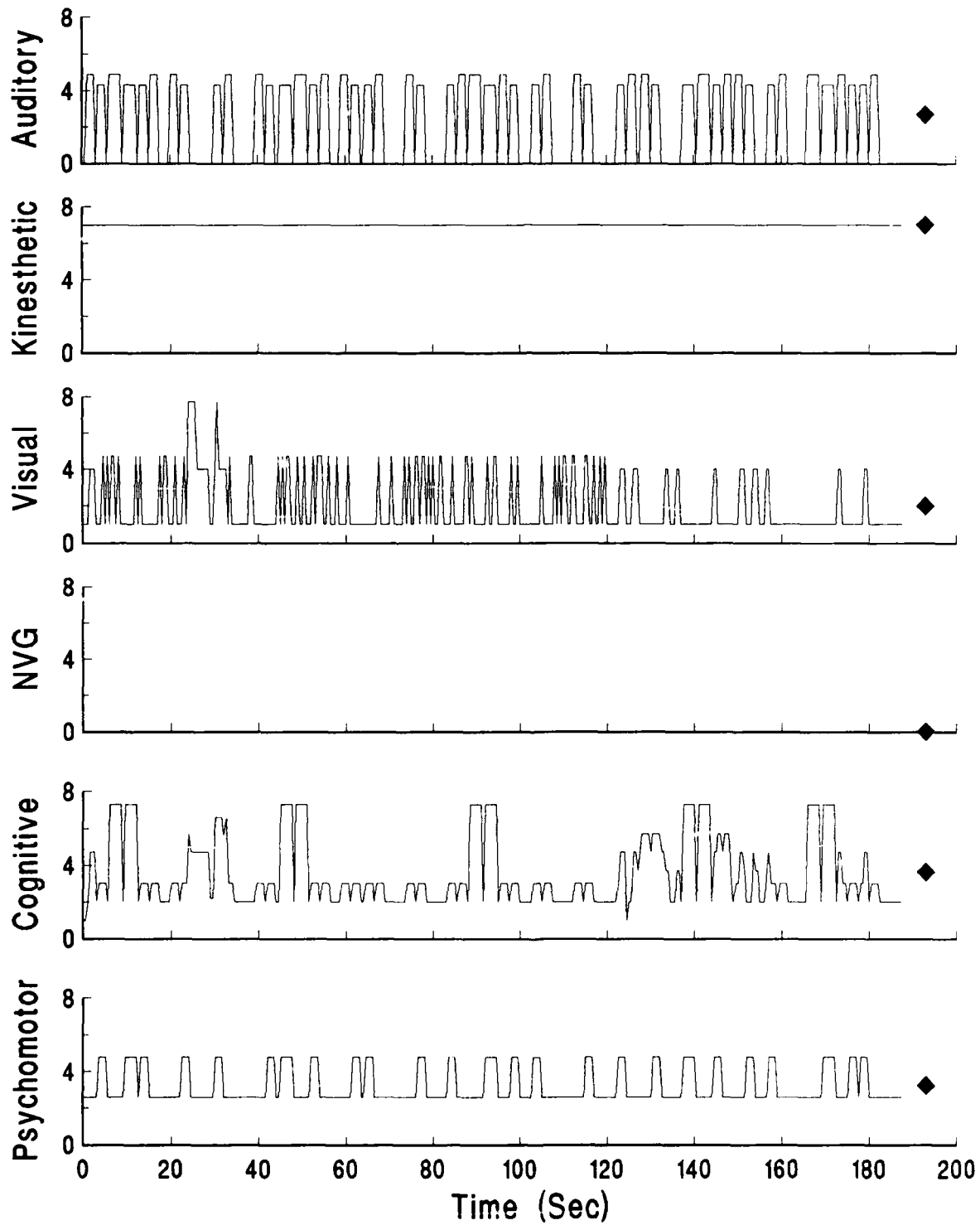
This appendix contains the workload prediction graphs for the pilot for each of the 34 UH-60A segments. Each page displays the predicted pilot workload for one segment using 6 graphs; one for each workload component. The diamond at the end of each graph indicates the average component workload for the segment.

Segment 01: Before Takeoff (Assembly Area)

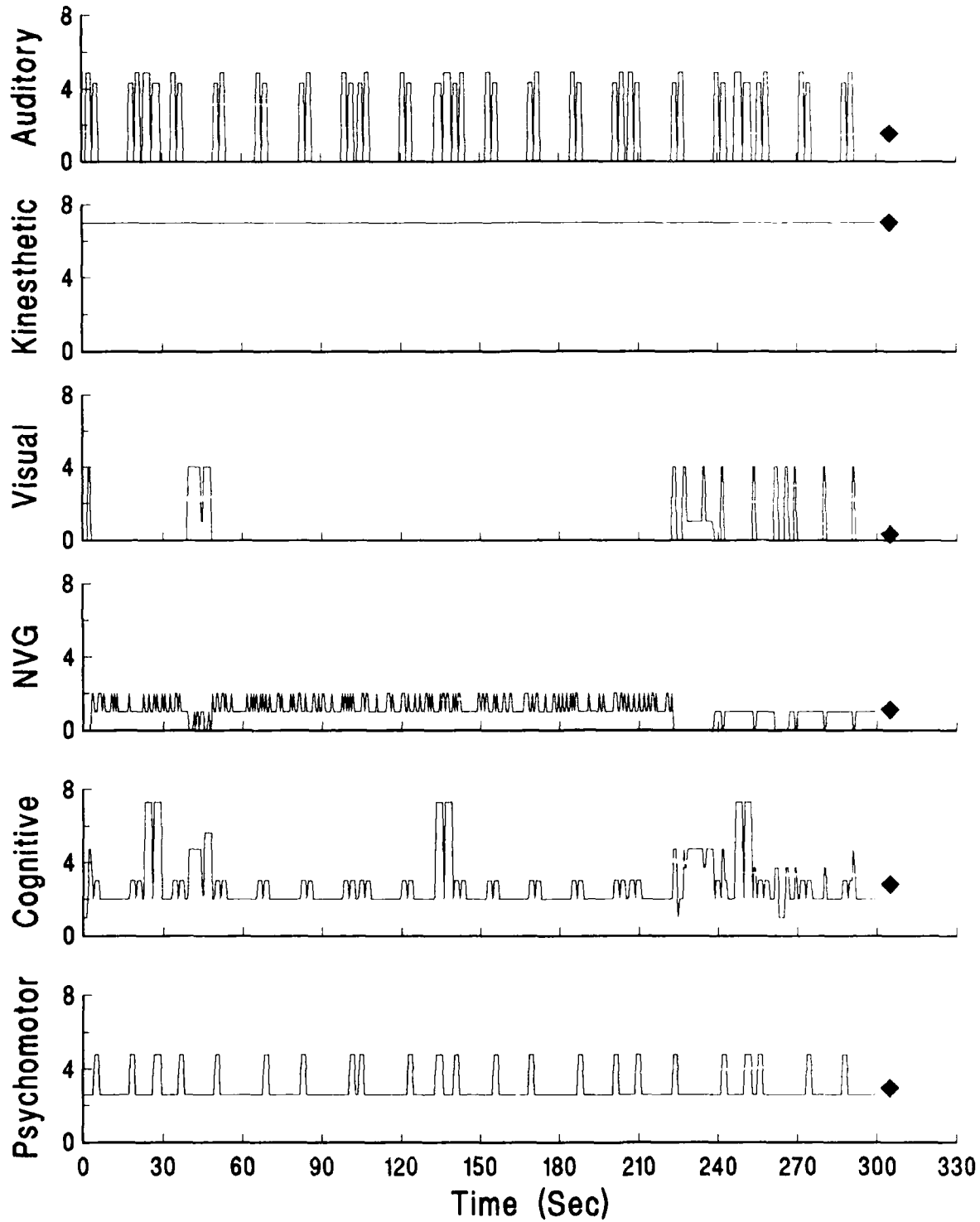
Pilot - UH-60A



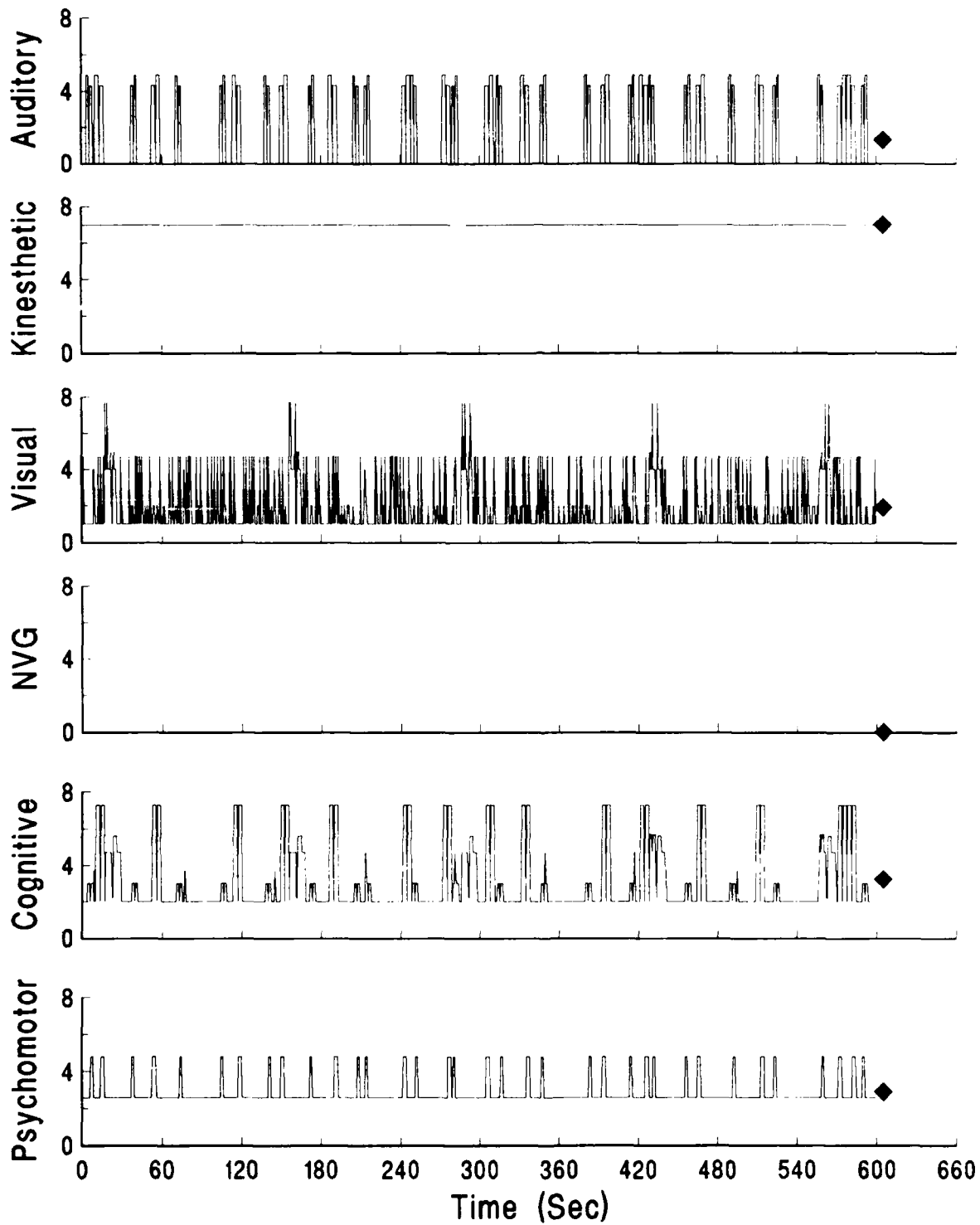
Segment 02: Takeoff
Pilot - UH-60A



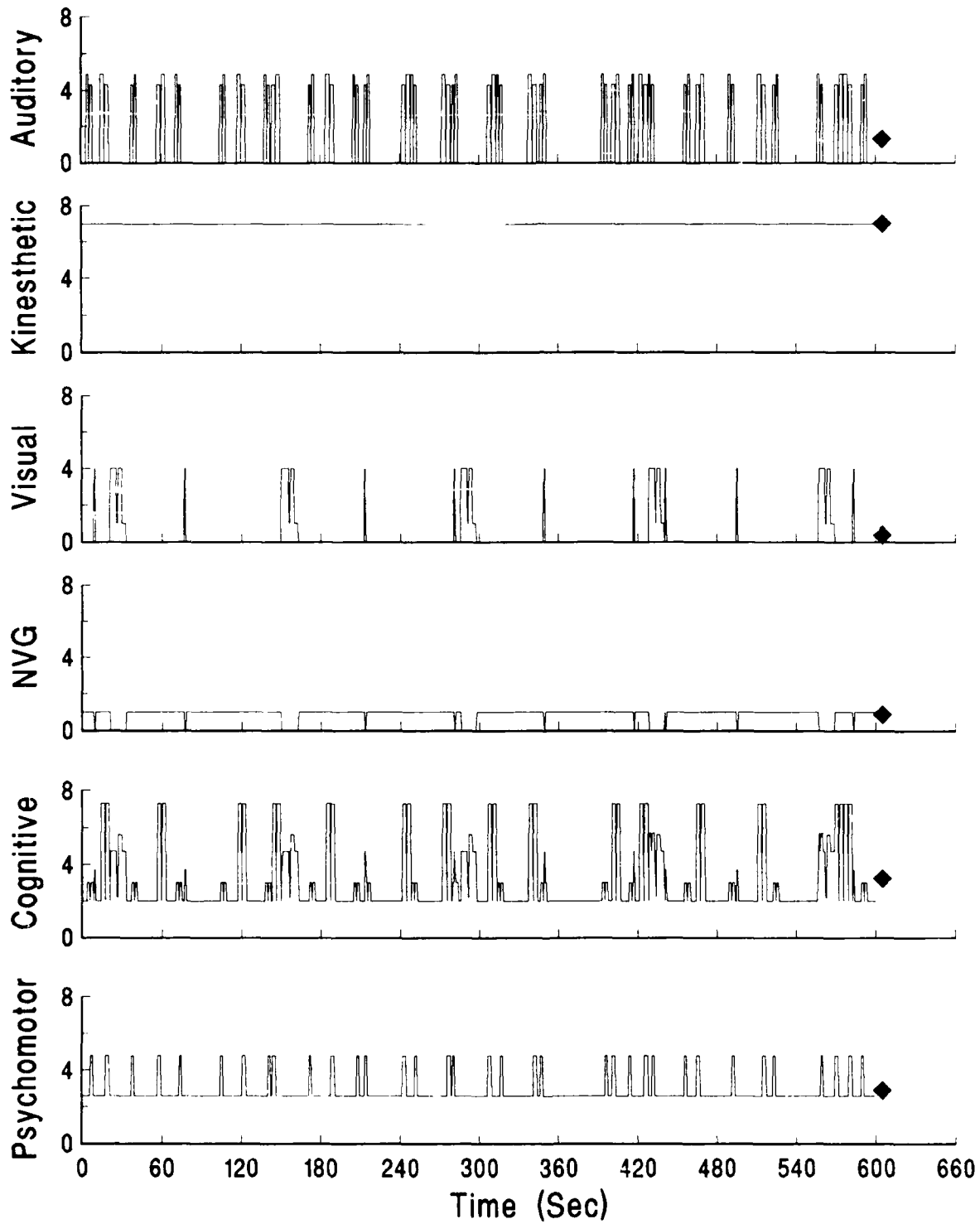
Segment 03: Takeoff [NVG]
Pilot - UH-60A



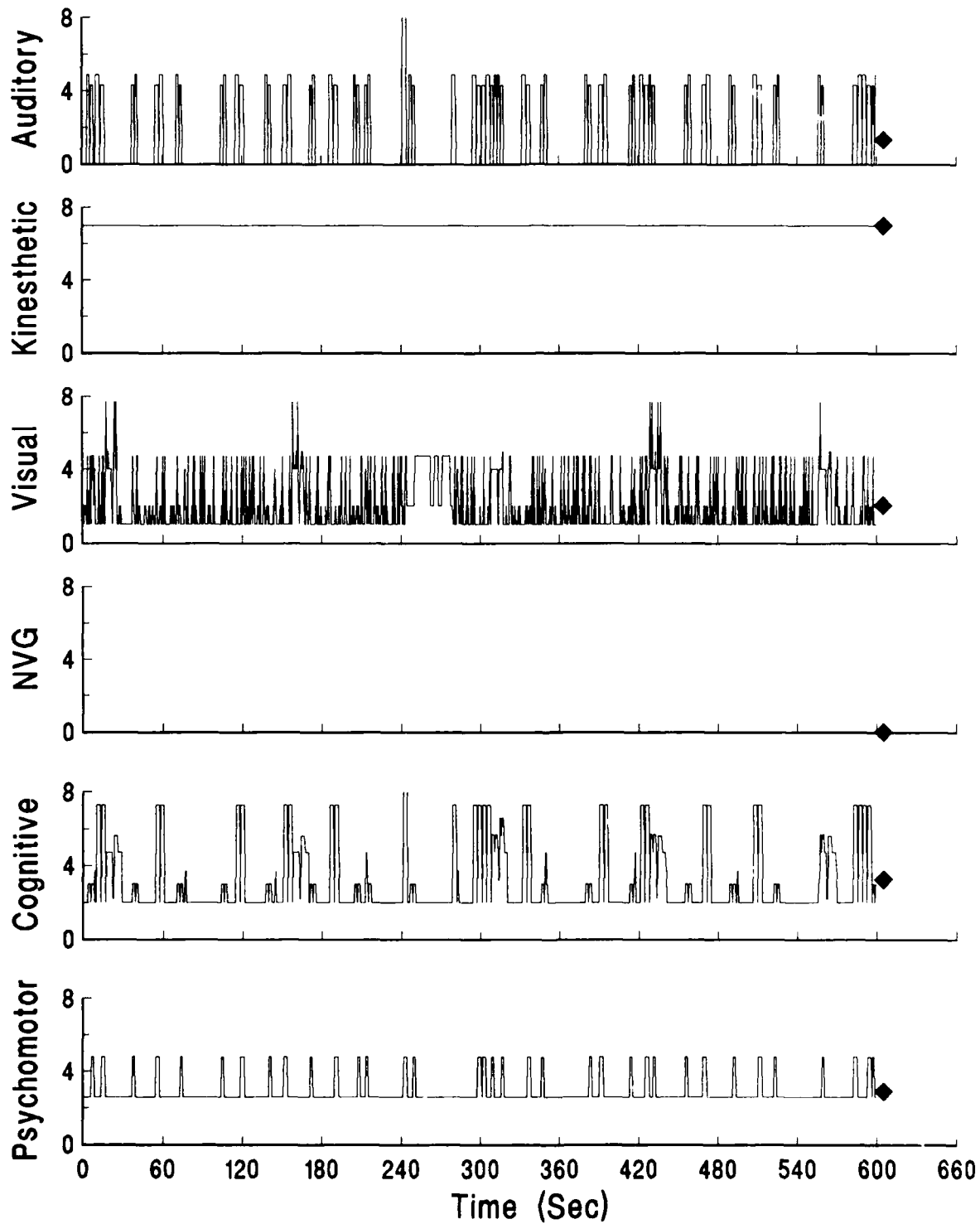
Segment 04: Contour Flight
Pilot - UH-60A



Segment 05: Contour Flight [NVG]
Pilot - UH-60A

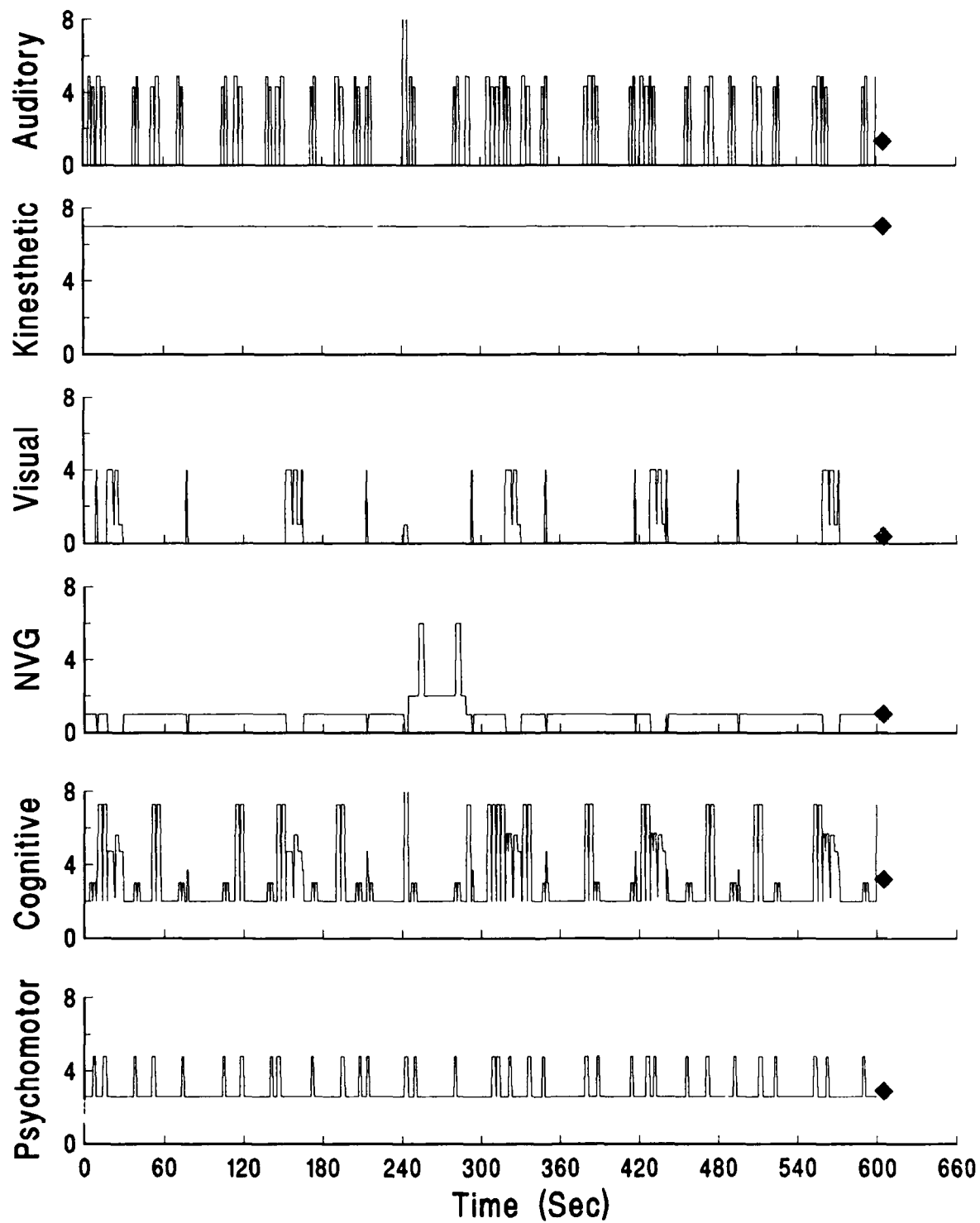


Segment 06: Contour Flight (Threat)
Pilot - UH-60A

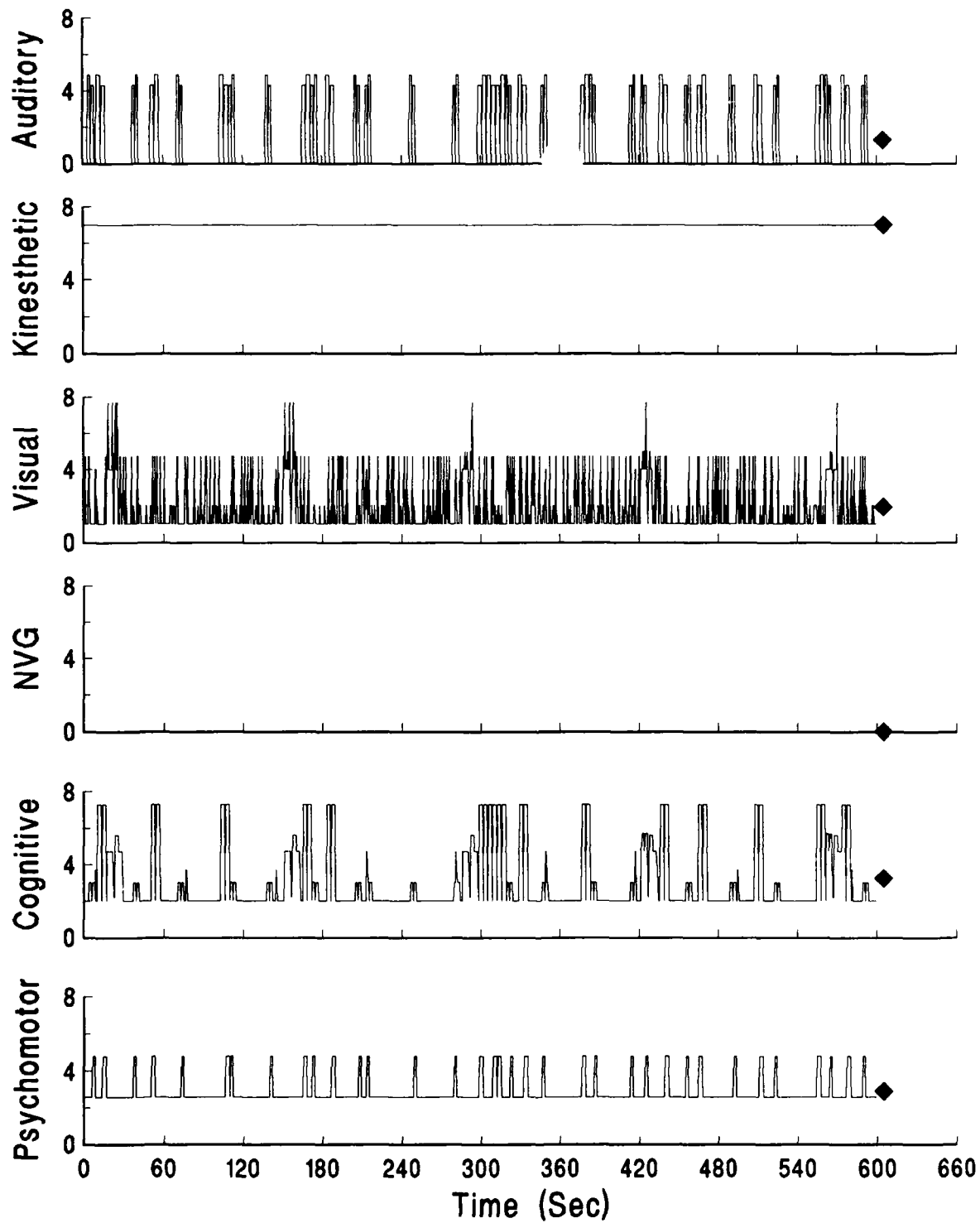


Segment 07: Contour Flight (Threat) [NVG]

Pilot - UH-60A

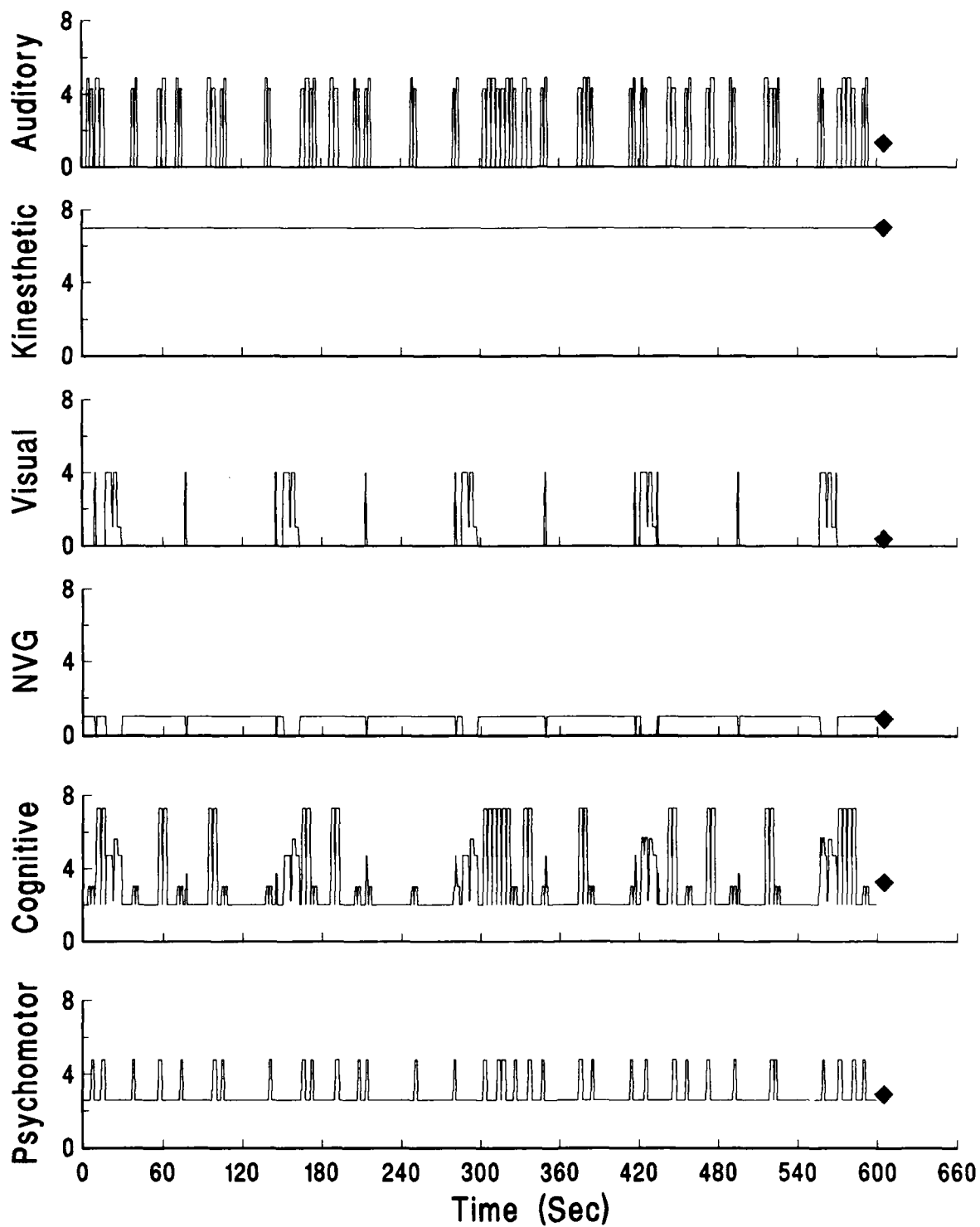


Segment 08: Contour Flight (Mission Change)
Pilot - UH-60A

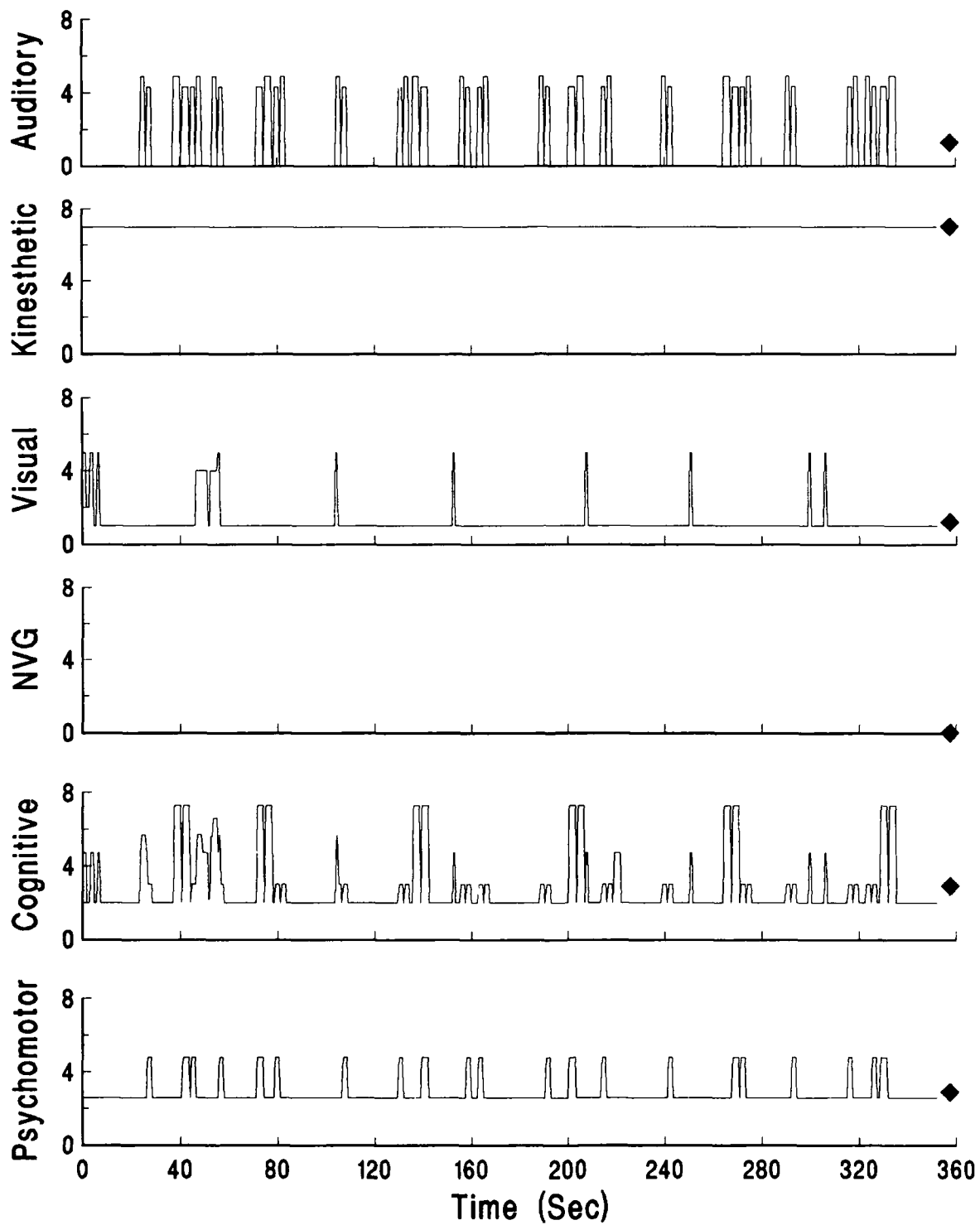


Segment 09: Contour Flight (Mission Change) [NVG]

Pilot - UH-60A

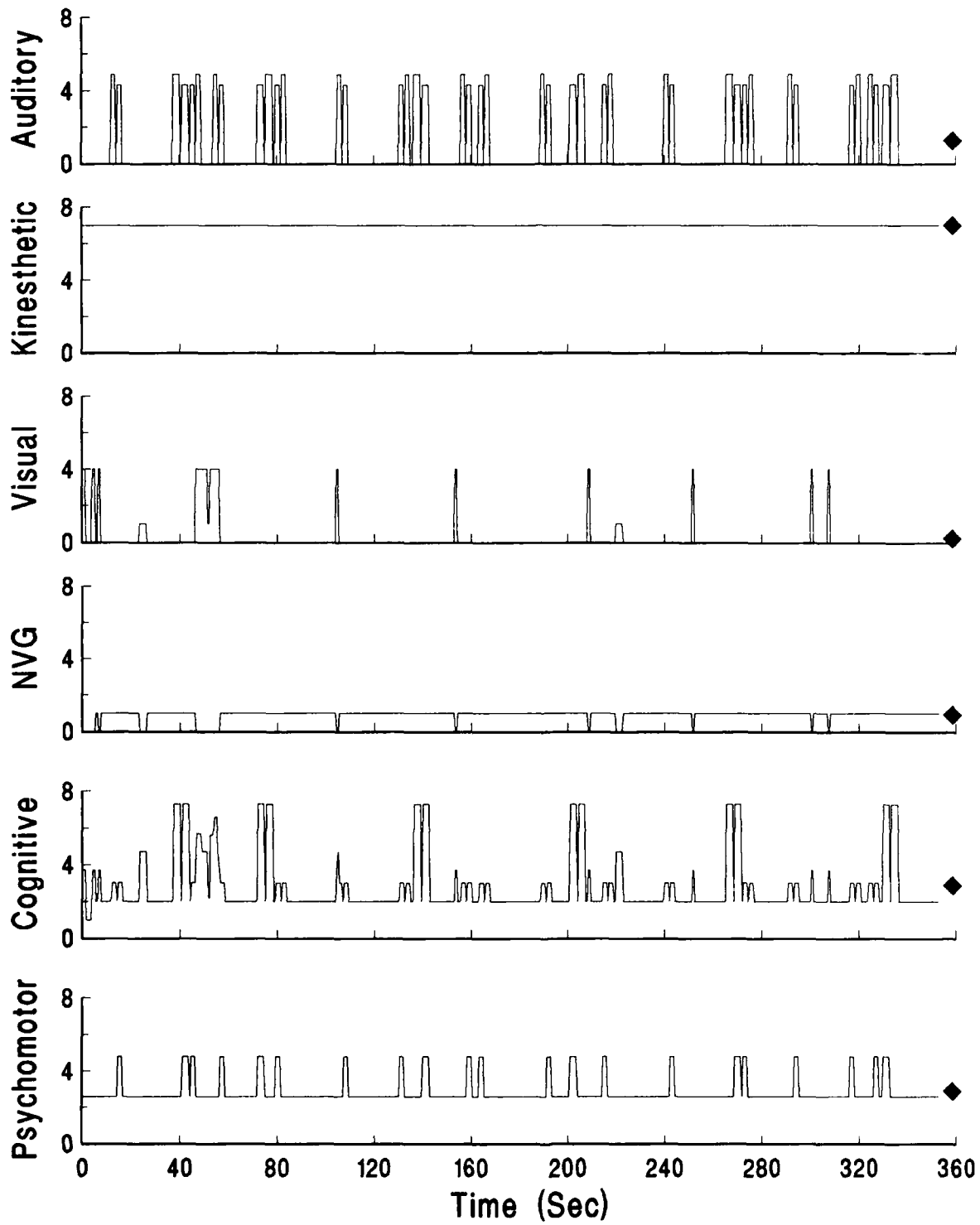


Segment 10: Approach
Pilot - UH-60A

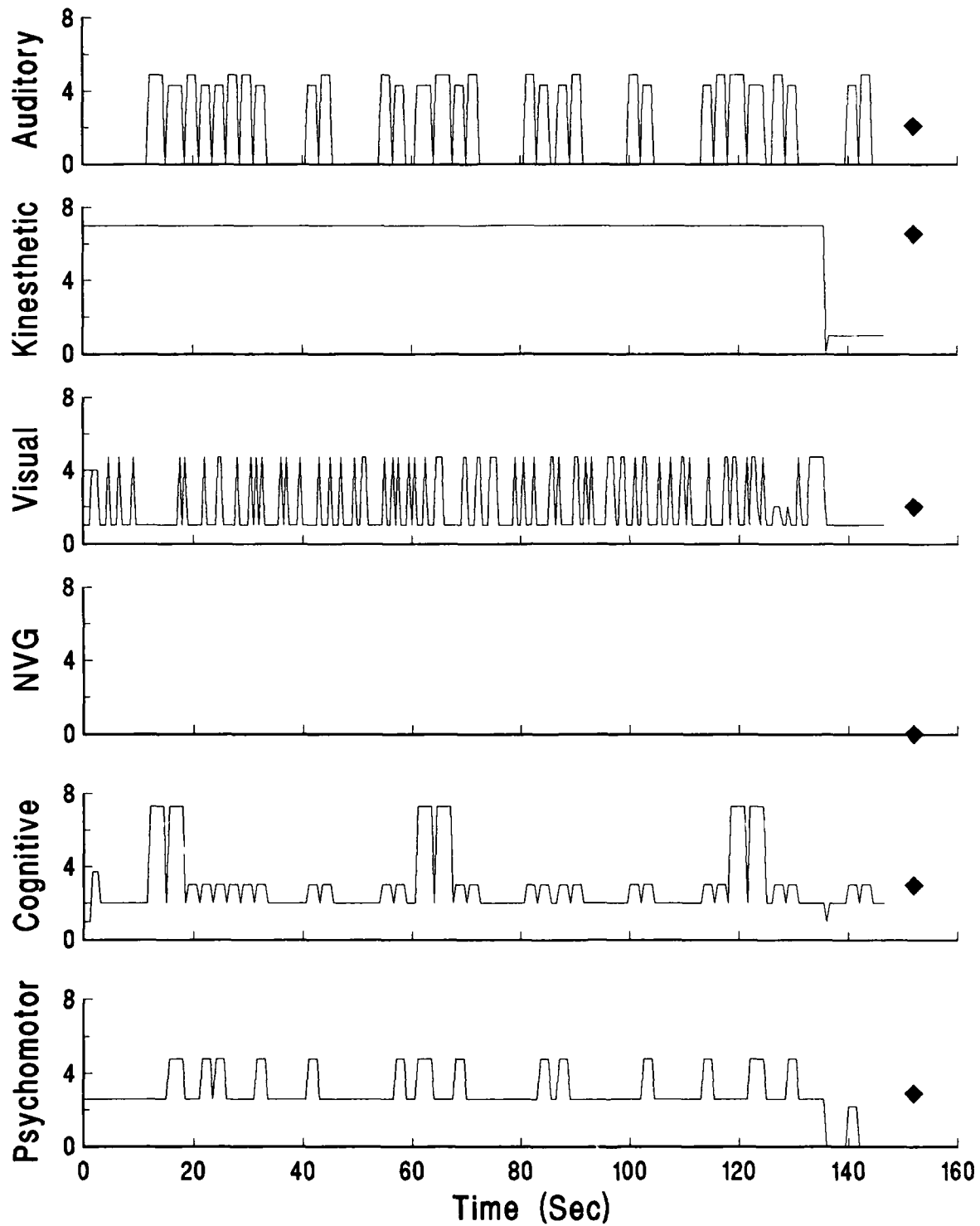


Segment 11: Approach [NVG]

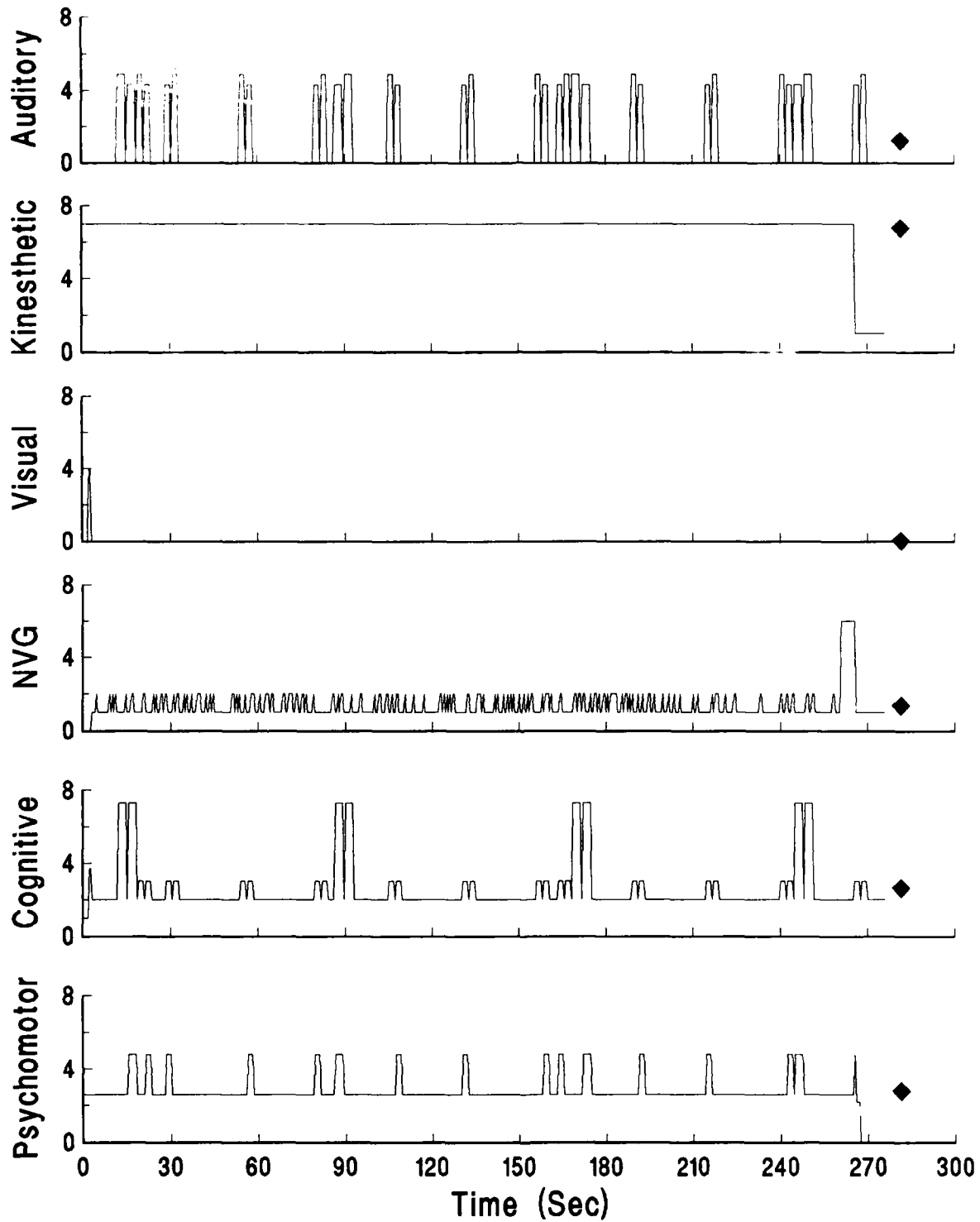
Pilot - UH-60A



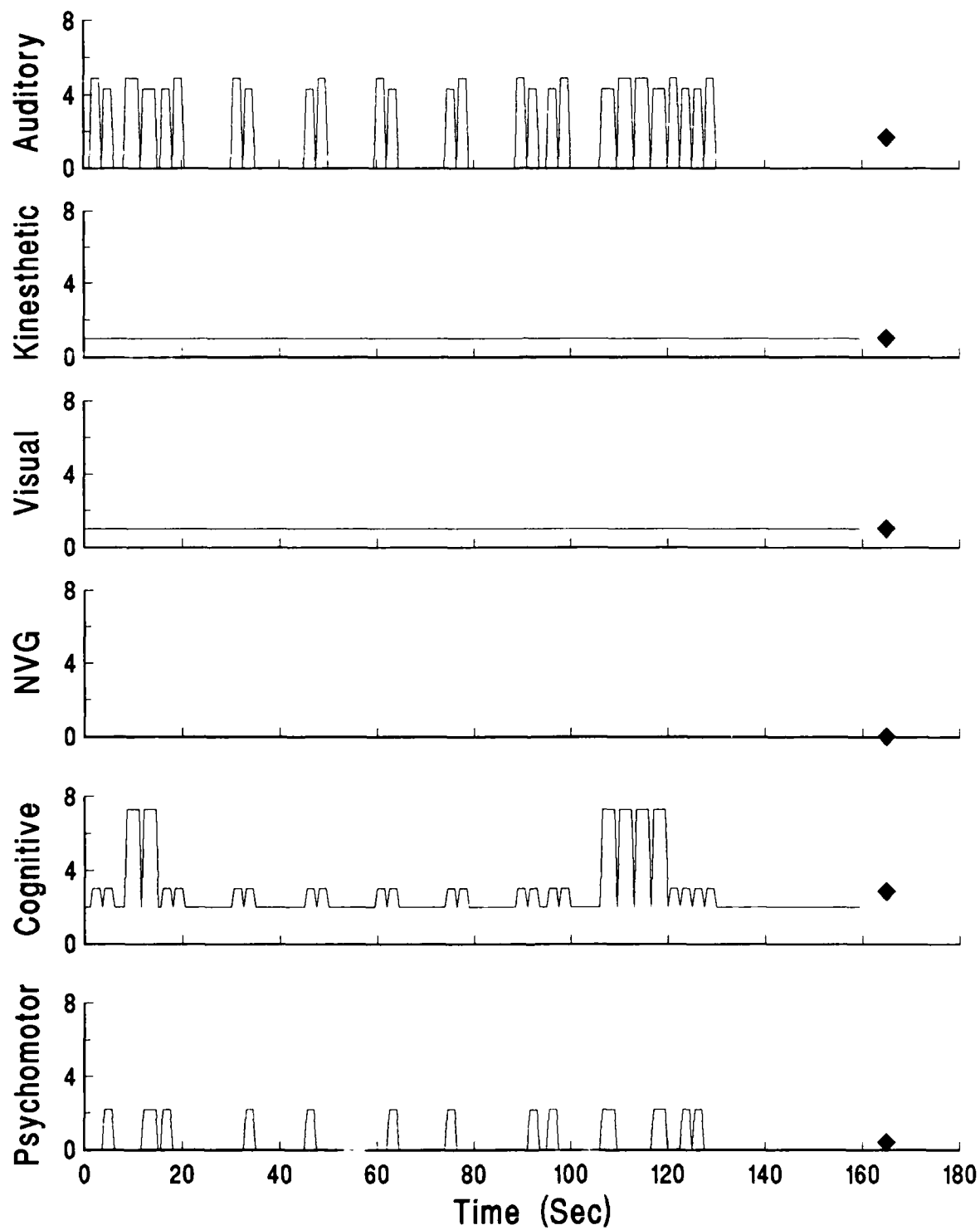
Segment 12: Landing
Pilot - UH-60A



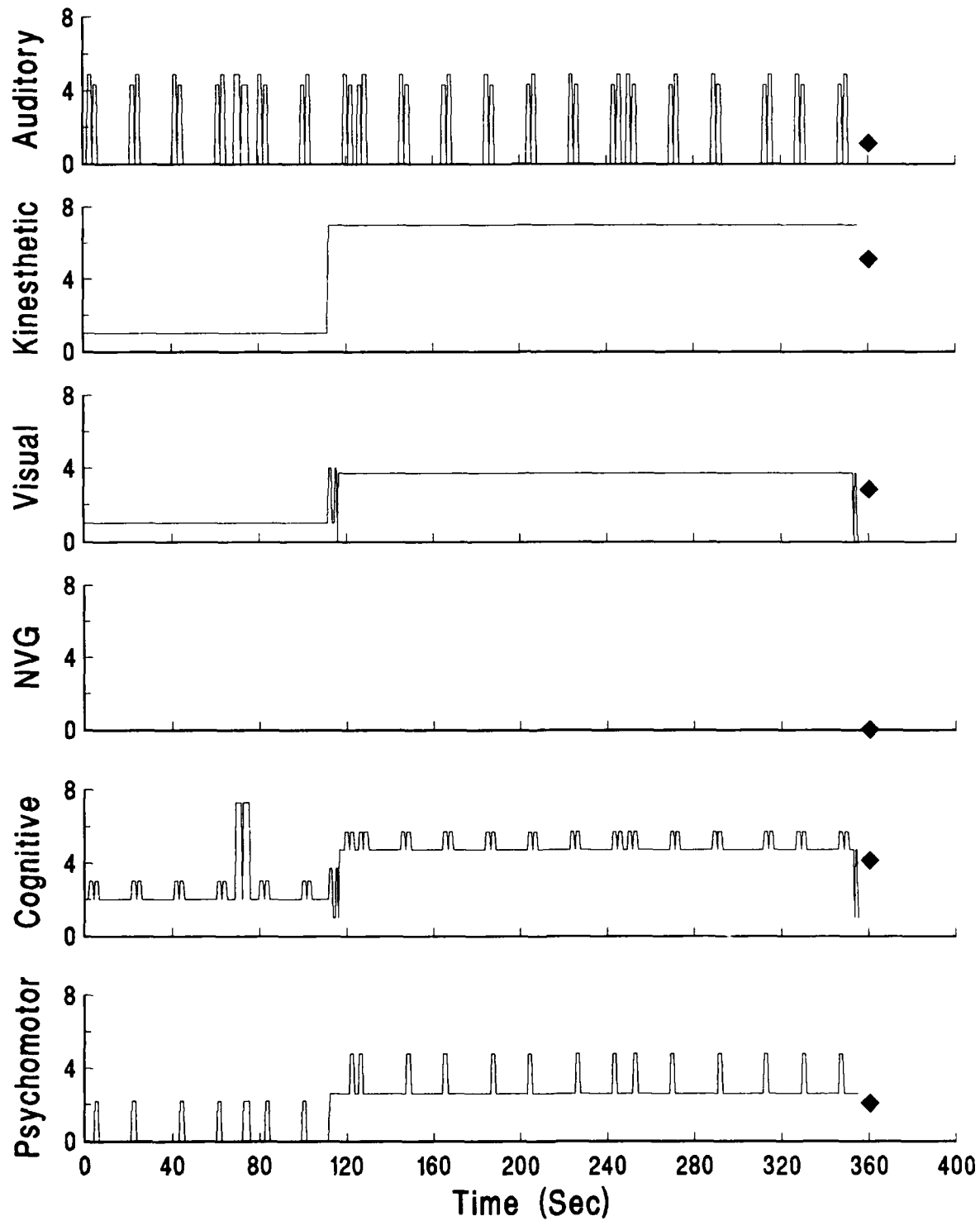
Segment 13: Landing [NVG]
Pilot - UH-60A



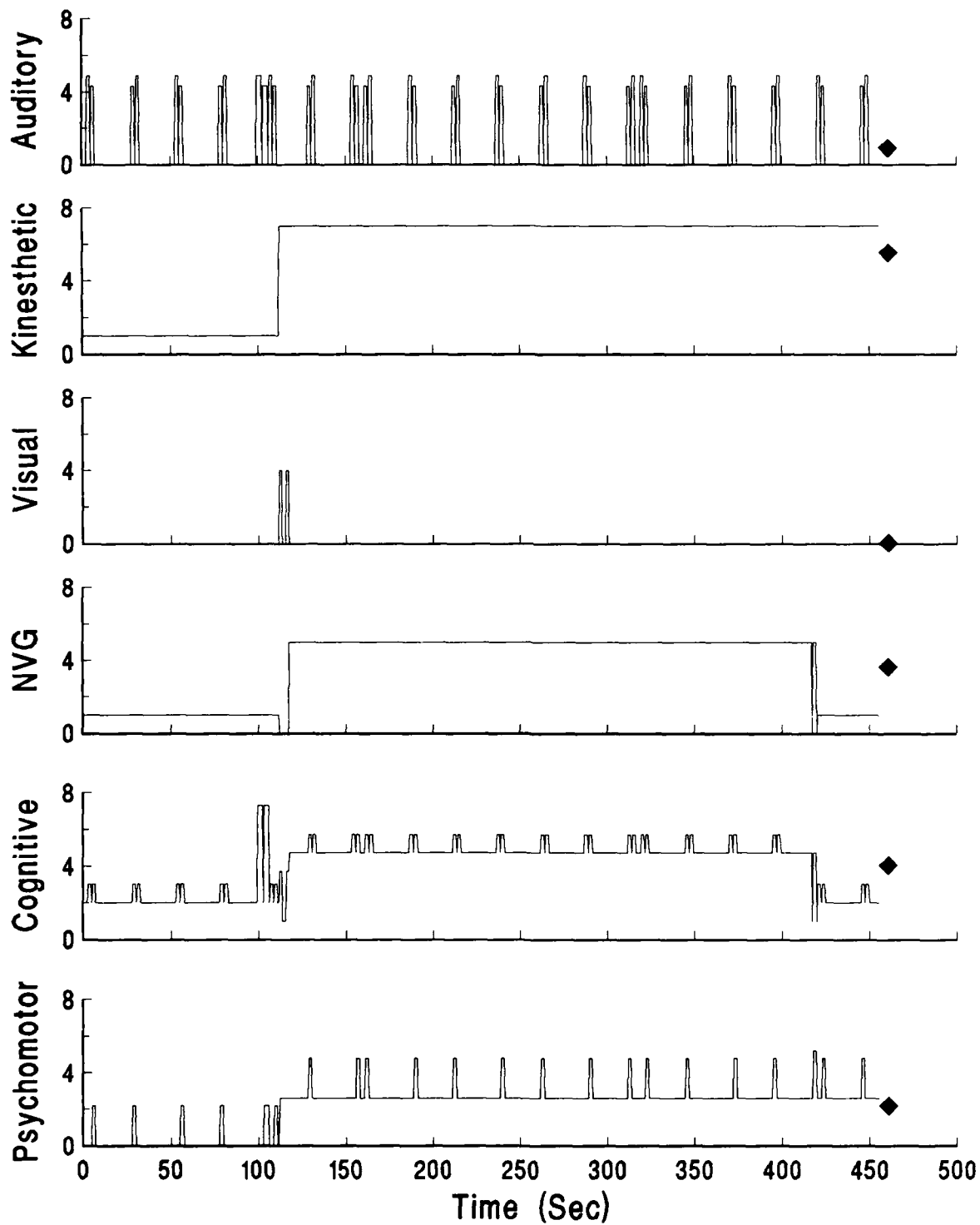
Segment 14: Before Takeoff (Internal Load)
Pilot - UH-60A



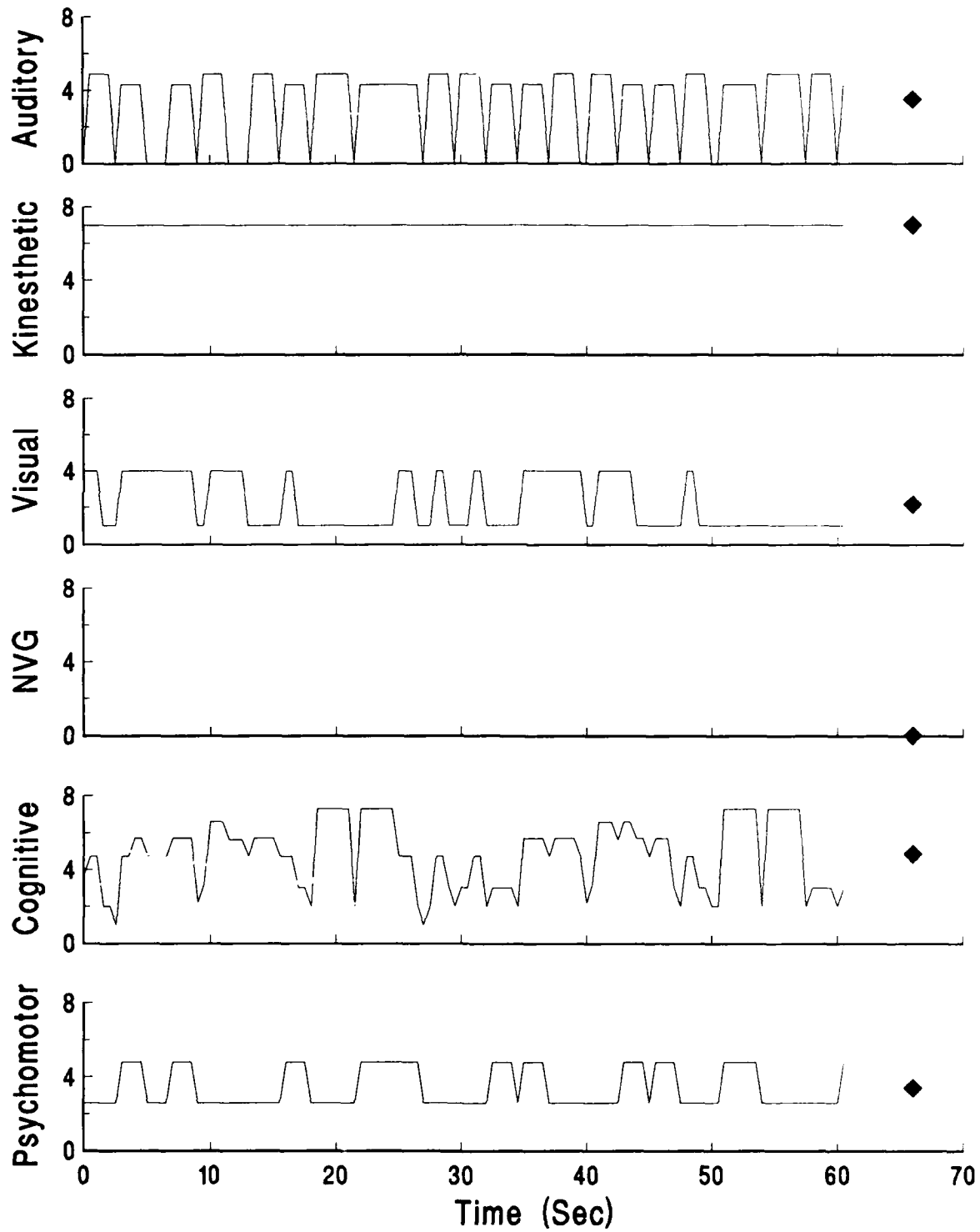
Segment 15: Before Takeoff (External Load)
Pilot - UH-60A



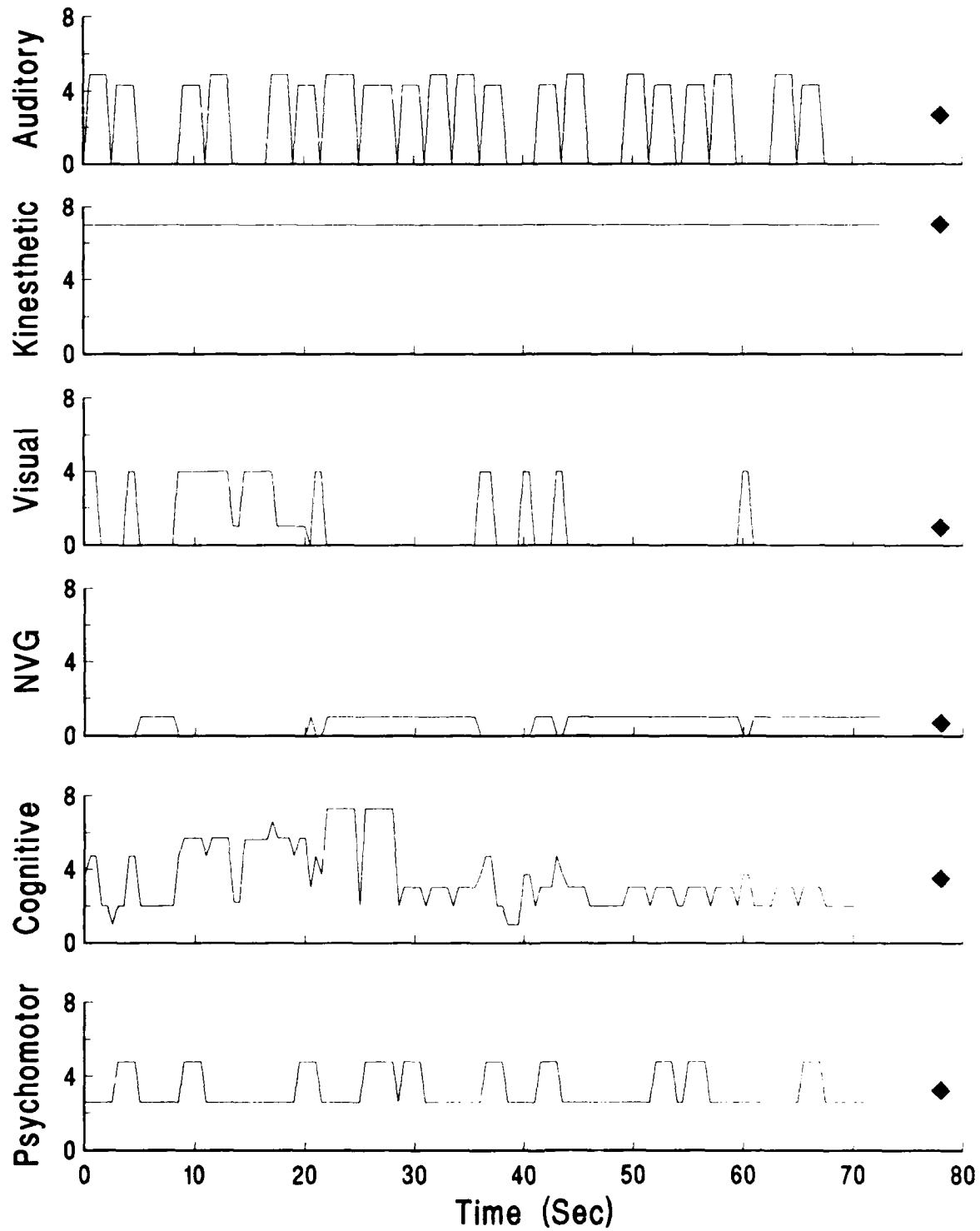
Segment 16: Before Takeoff (External Load) [NVG]
Pilot - UH-60A



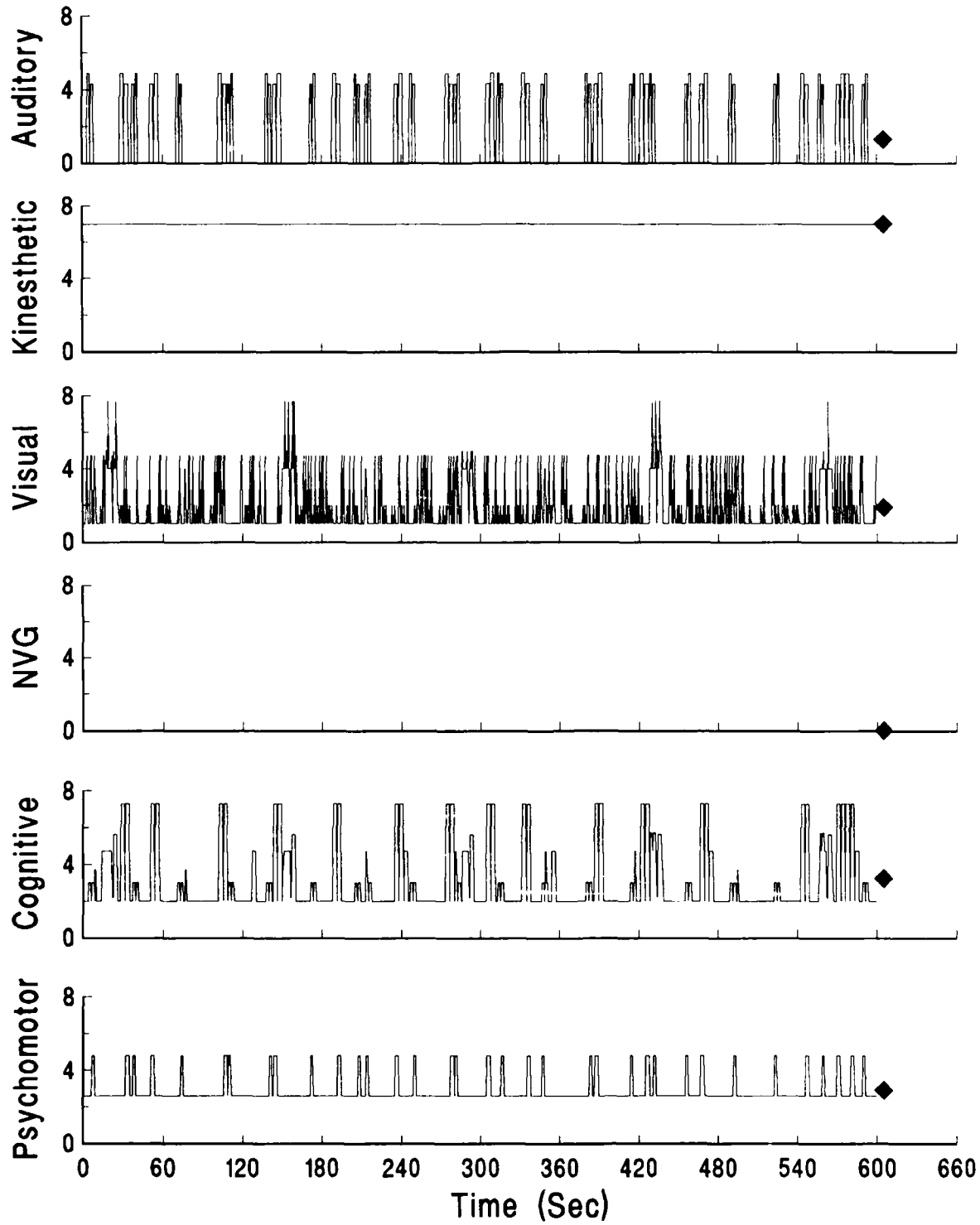
Segment 17: Takeoff (External)
Pilot - UH-60A



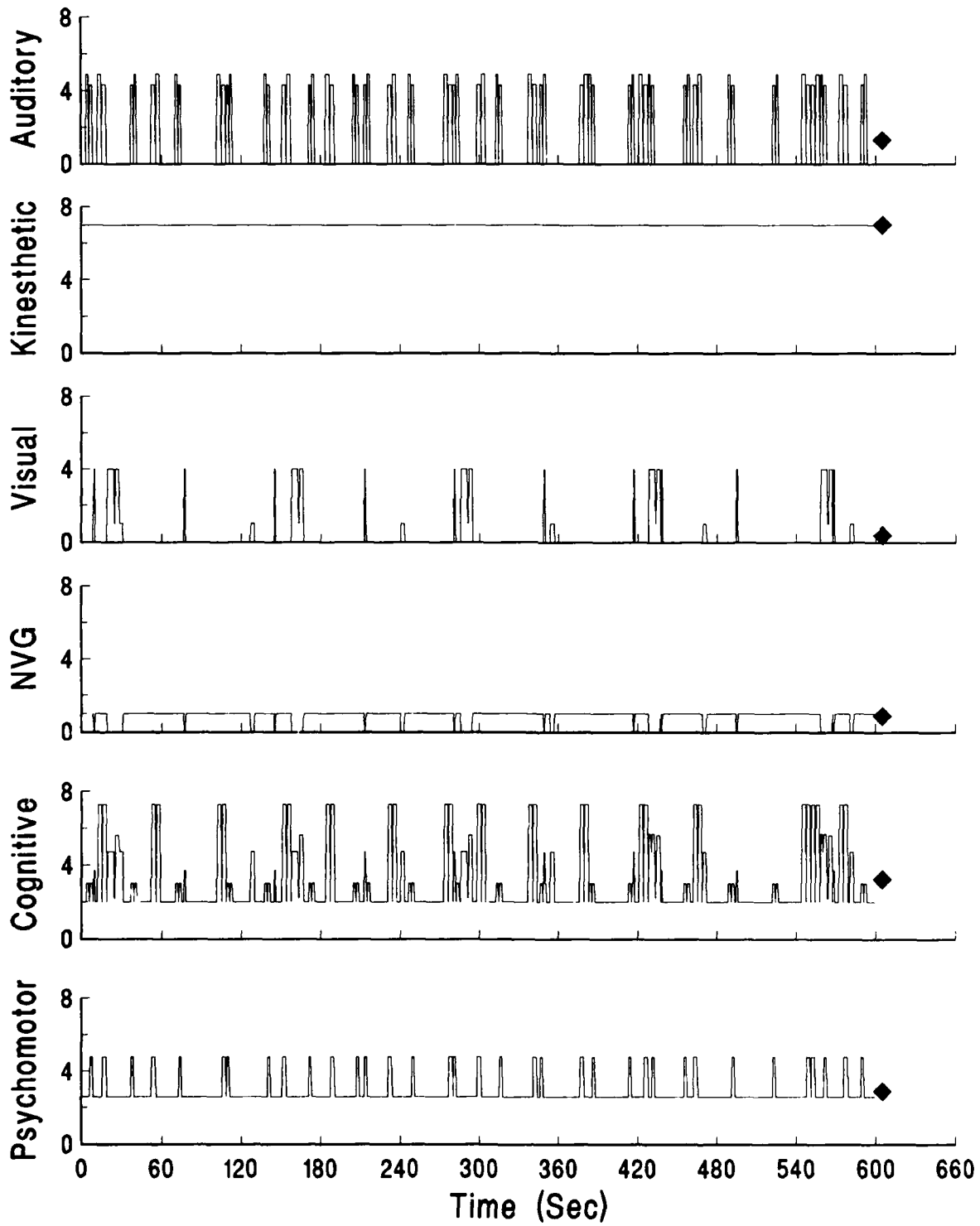
Segment 18: Takeoff (External) [NVG]
Pilot - UH-60A



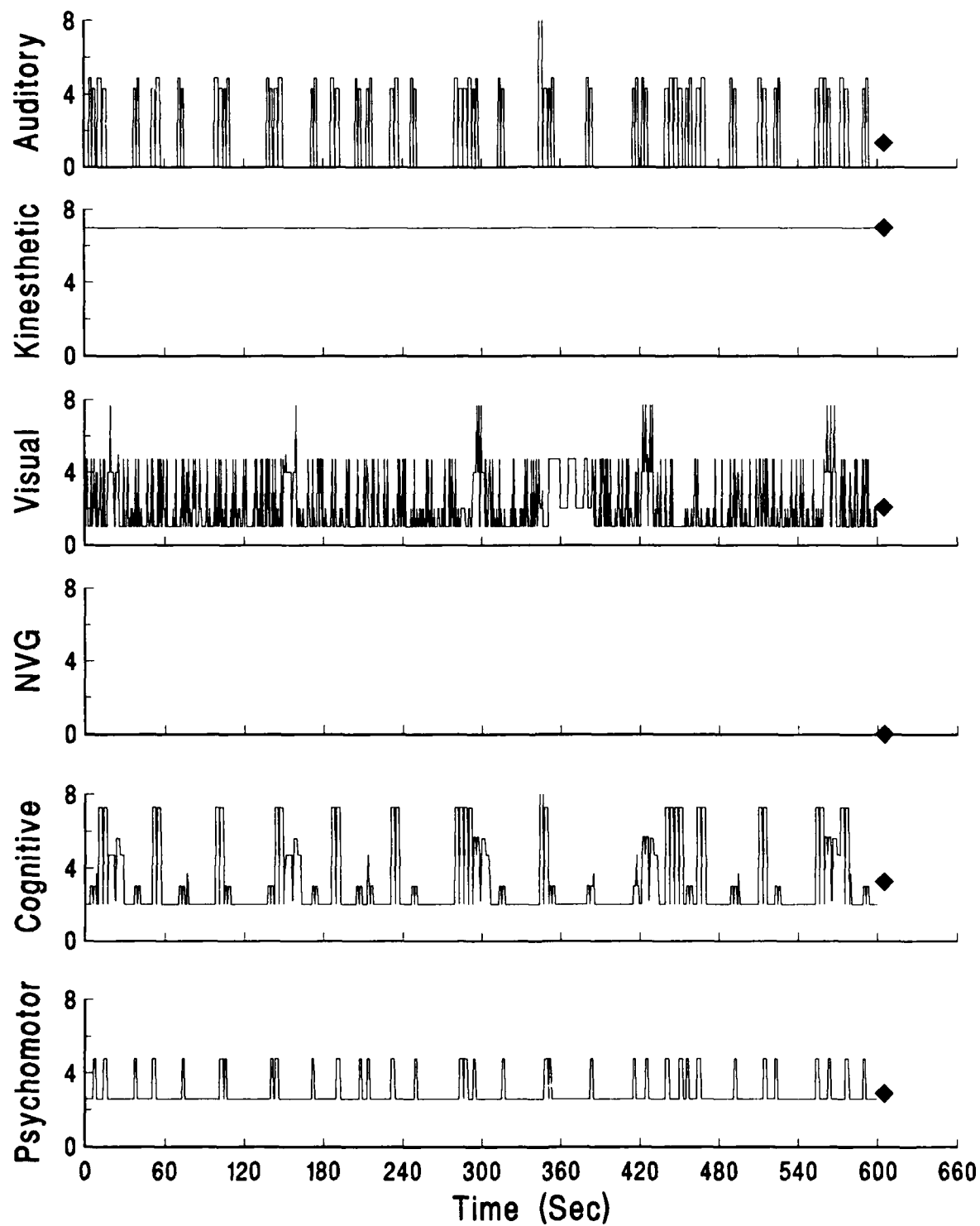
Segment 19: NOE Flight
Pilot - UH-60A



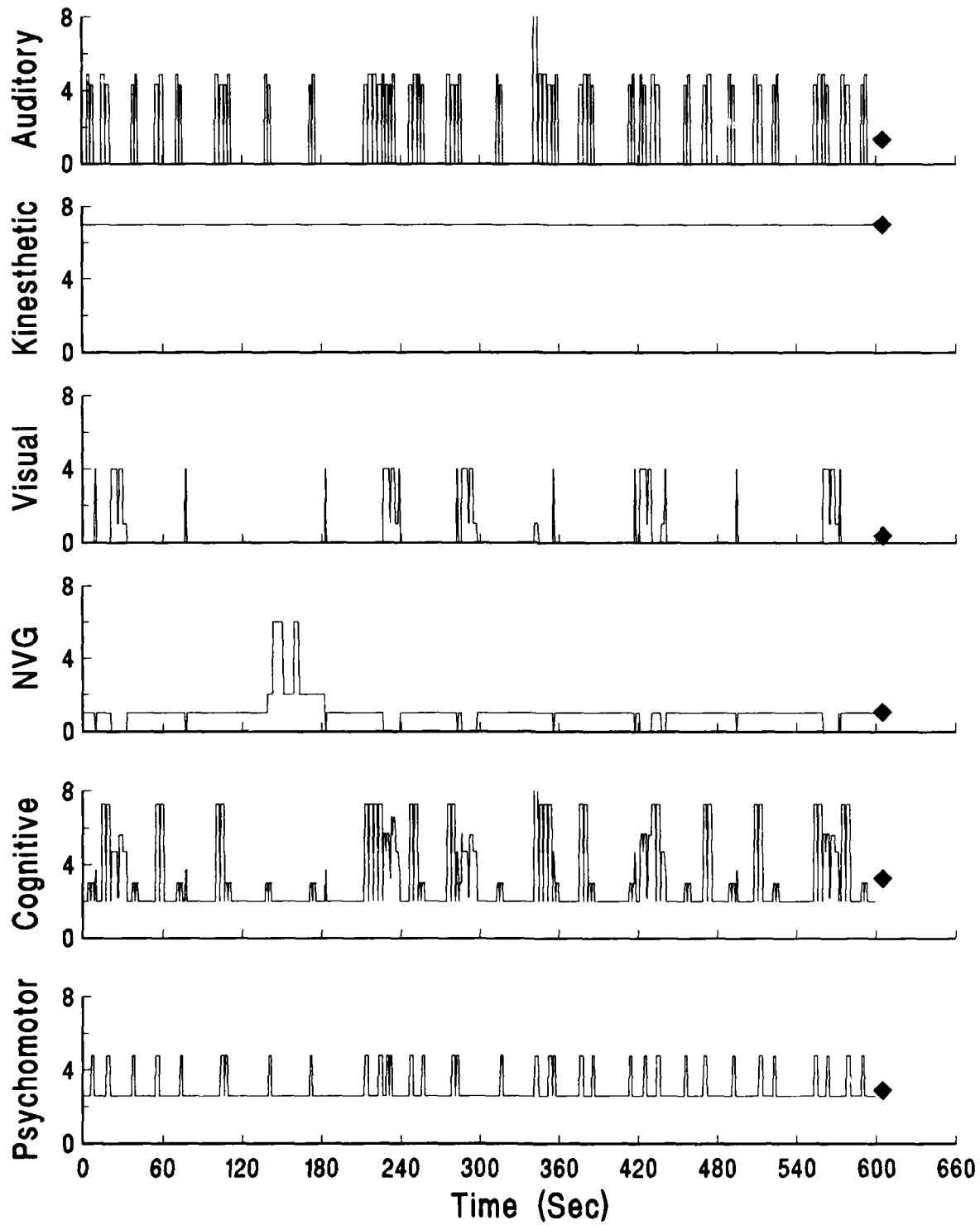
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Pilot - UH-60A



Segment 21: NOE Flight (Threat)
Pilot - UH-60A

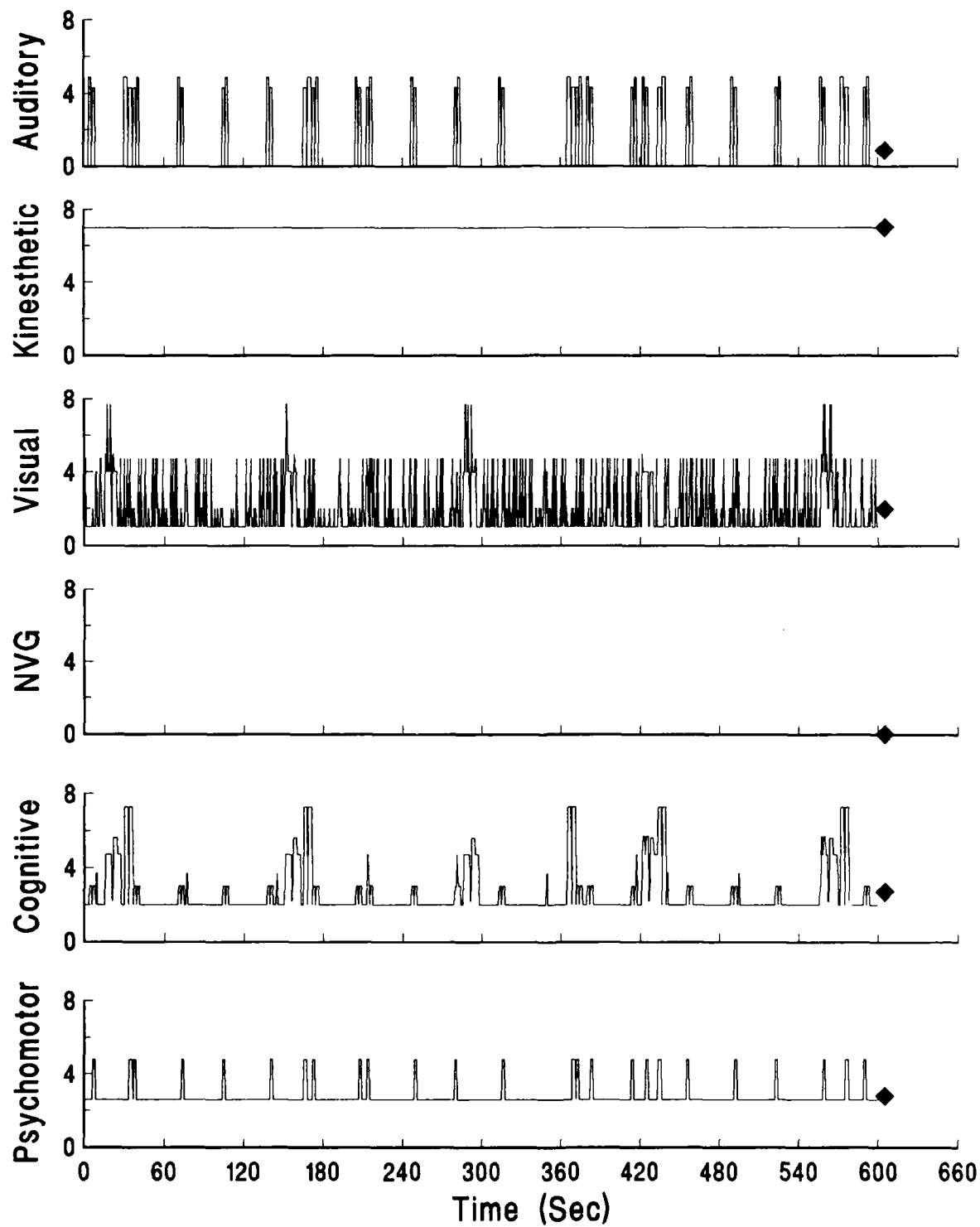


Segment 22: NOE Flight (Threat) [NVG]
Pilot - UH-60A

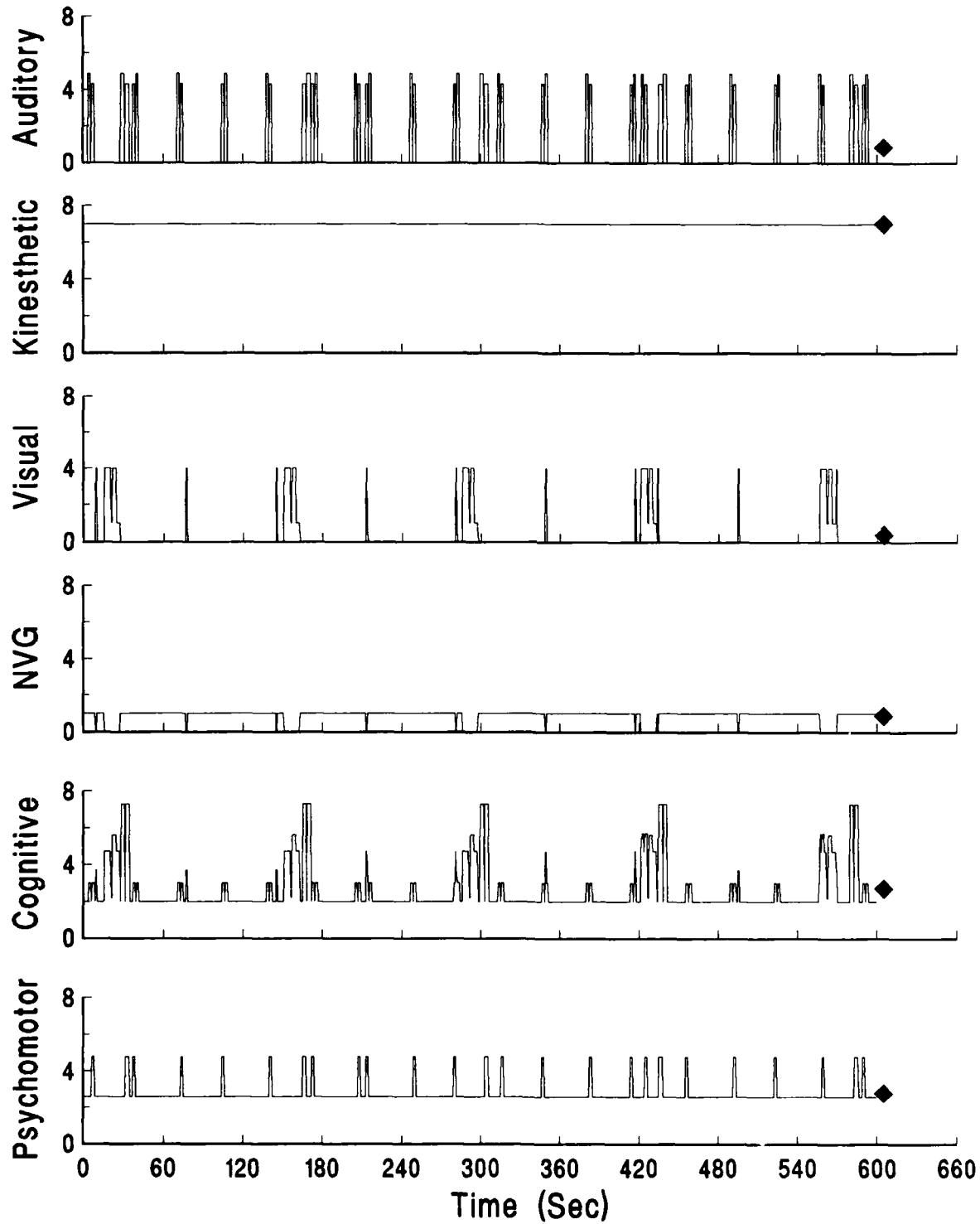


Segment 23: NOE Flight (Mission Change)

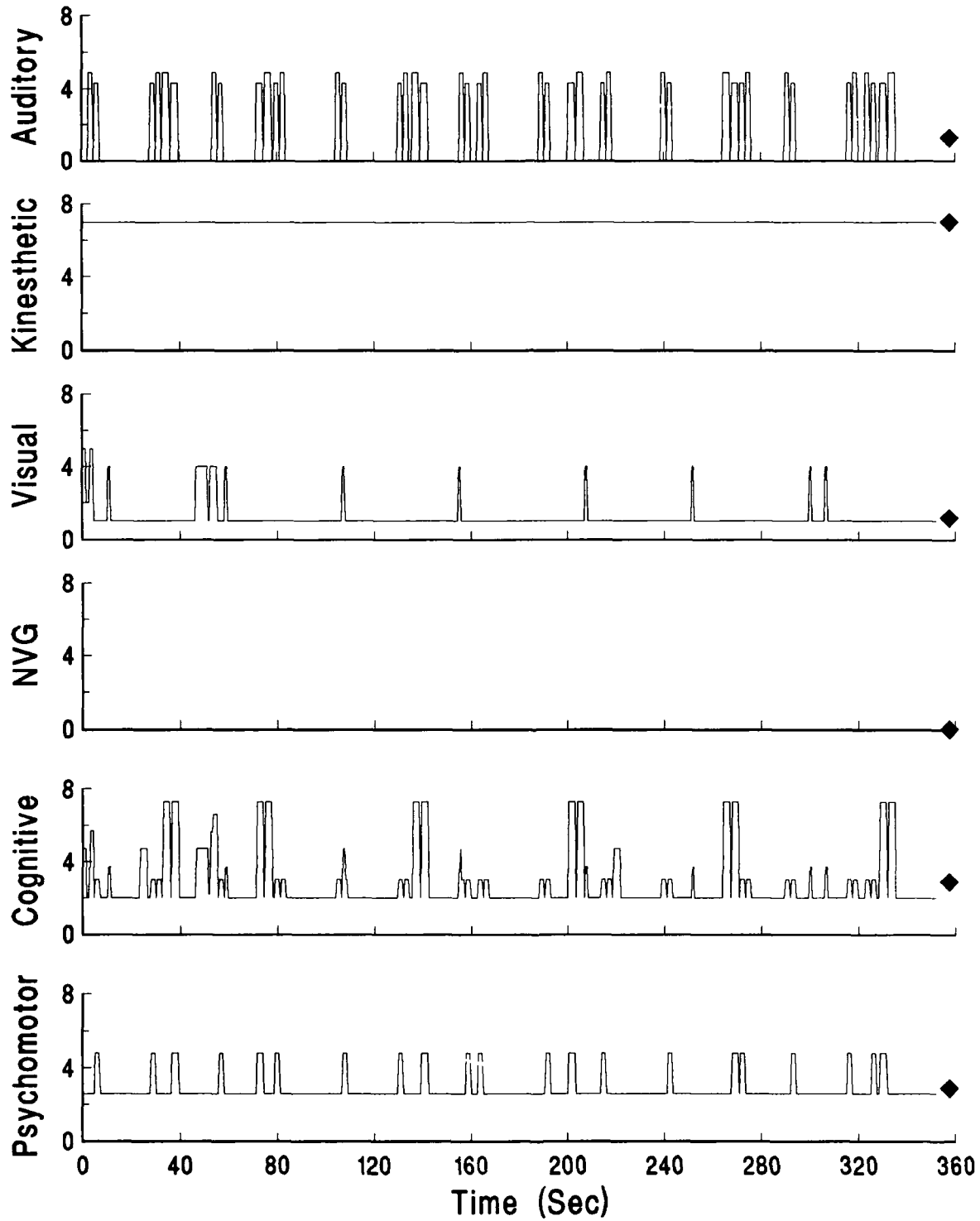
Pilot - UH-60A



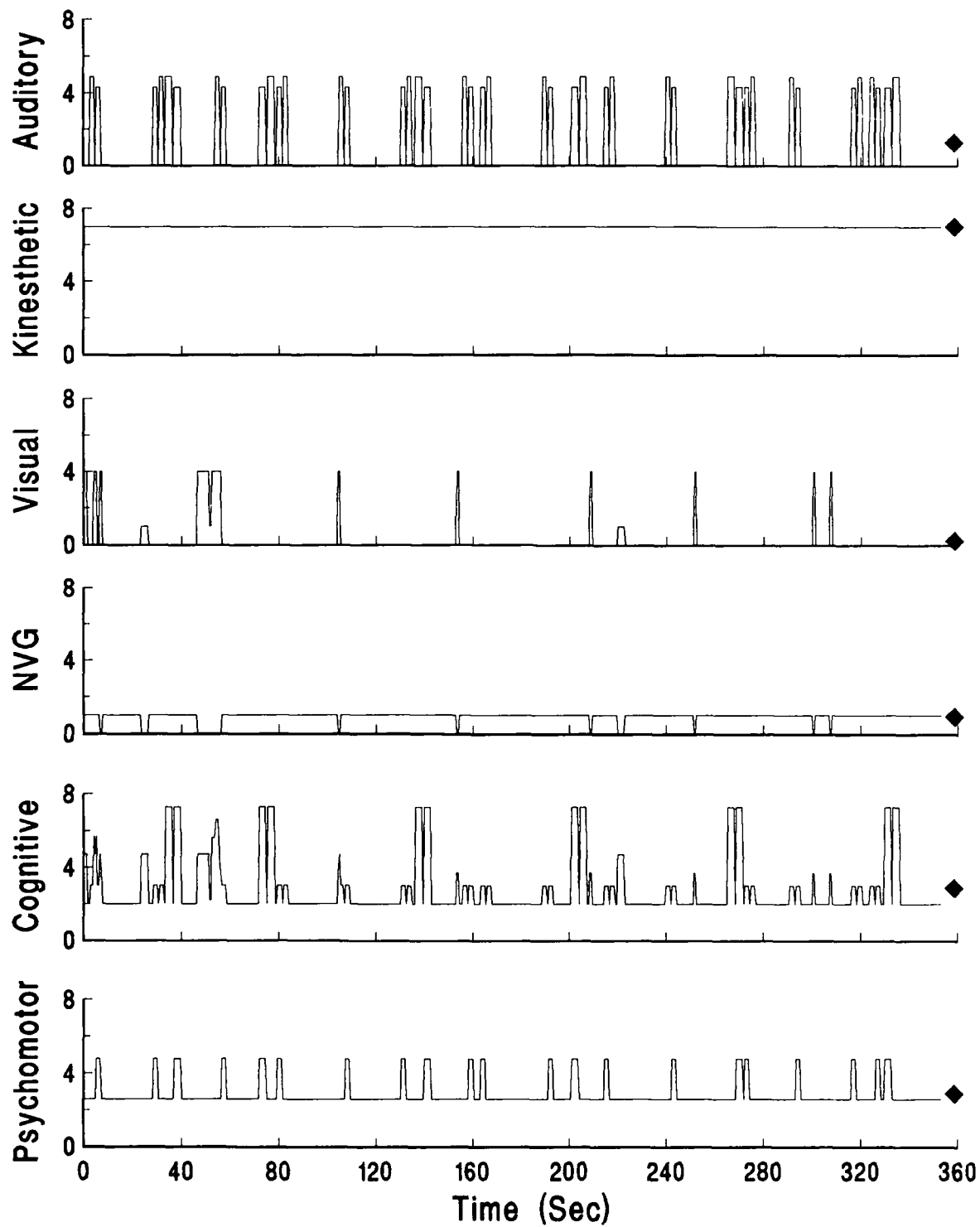
Segment 24: NOE Flight (Mission Change) [NVG]
Pilot - UH-60A



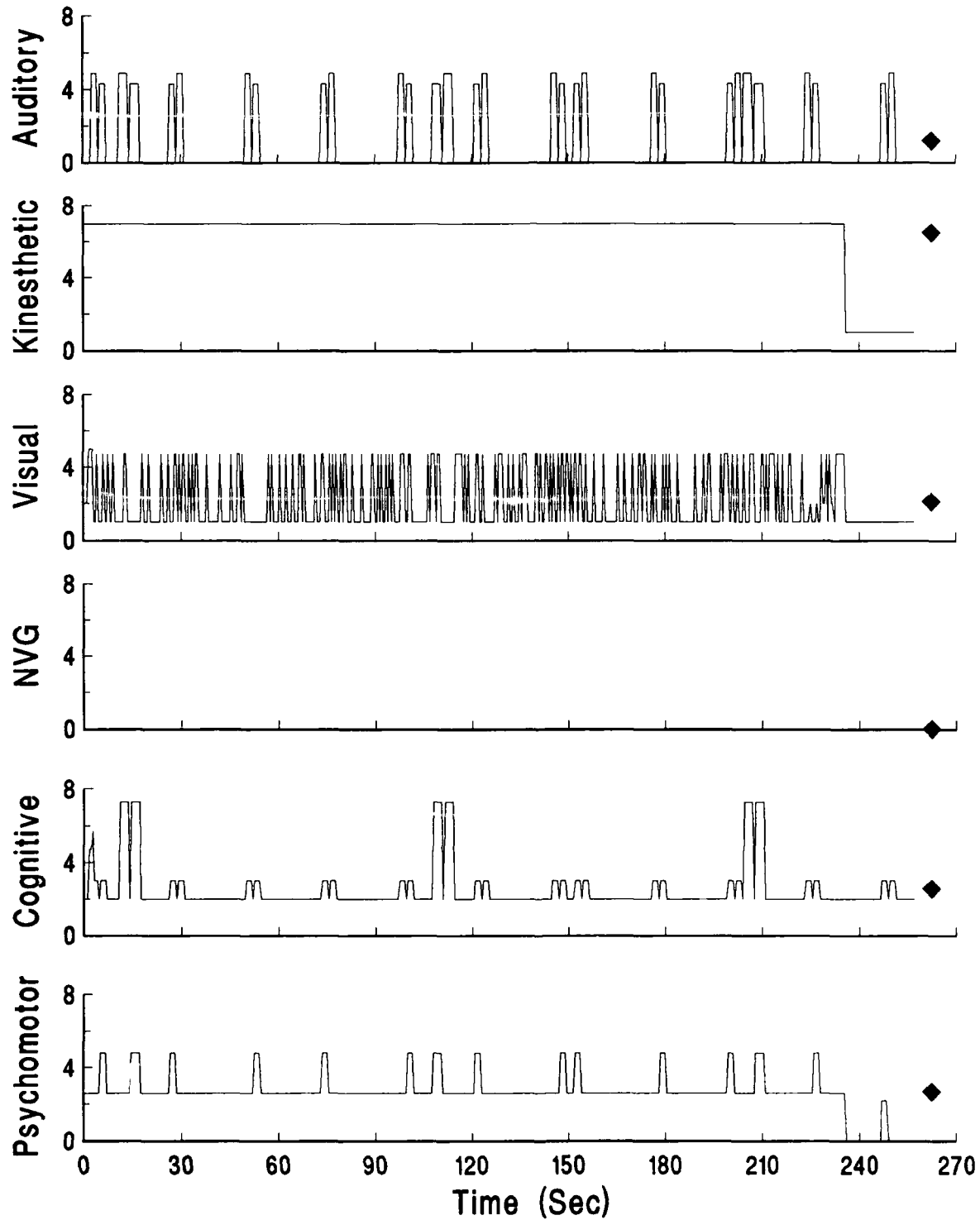
Segment 25: Approach (LZ)
Pilot - UH-60A



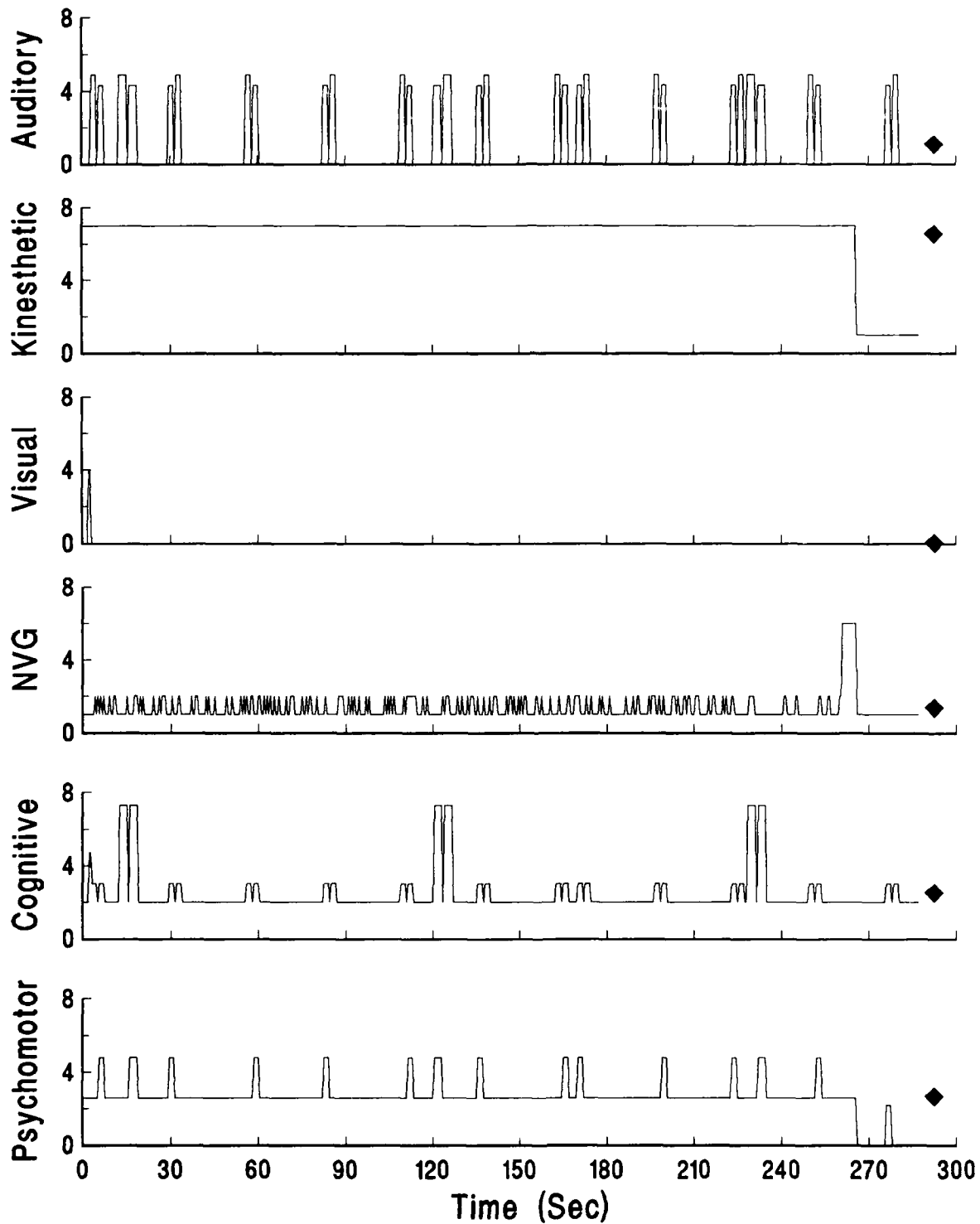
Segment 26: Approach (LZ) [NVG]
Pilot - UH-60A



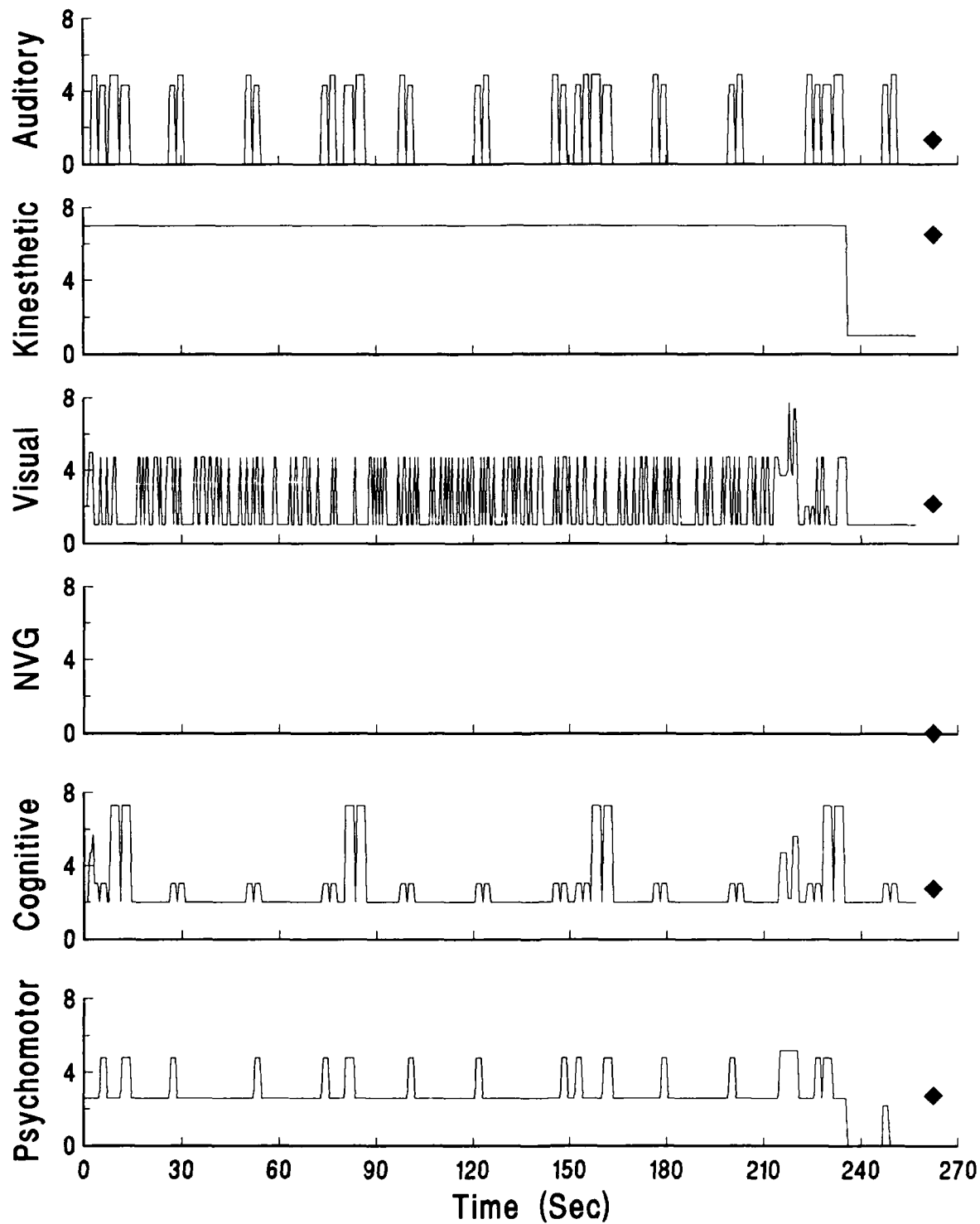
Segment 27: Landing (LZ, Internal Load)
Pilot - UH-60A



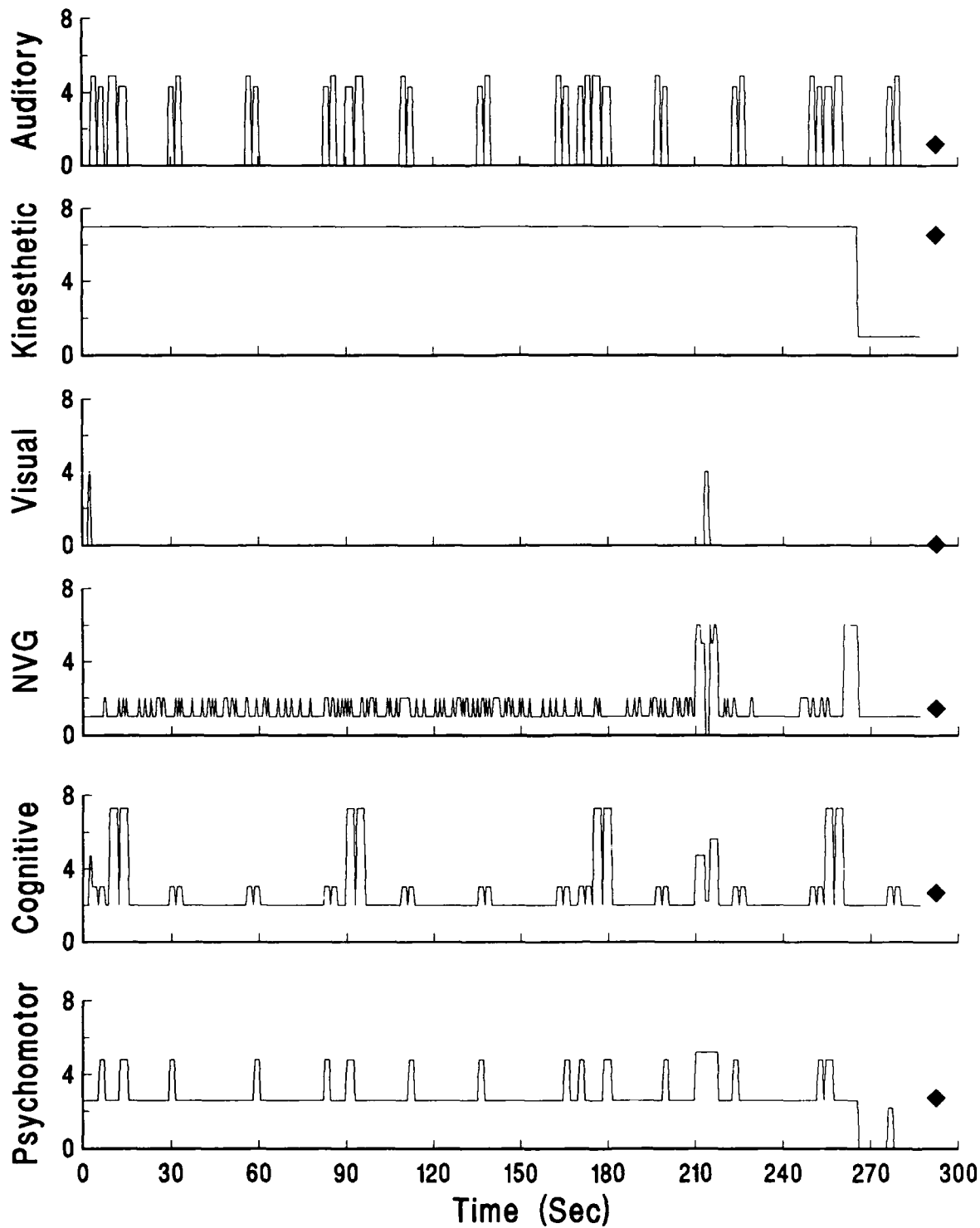
Segment 28: Landing (LZ, Internal Load) [NVG]
Pilot - UH-60A



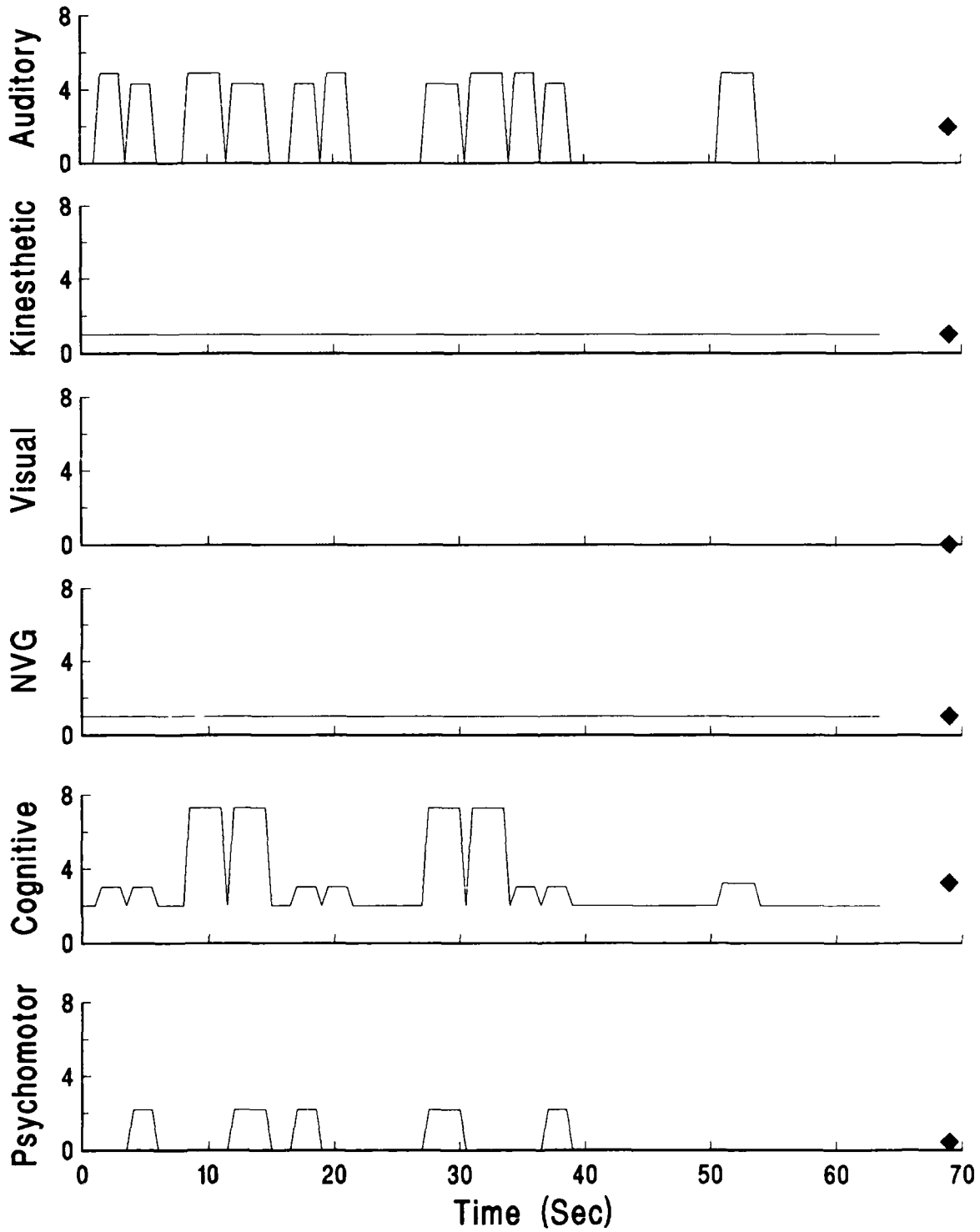
Segment 29: Landing (LZ, External Load)
Pilot - UH-60A



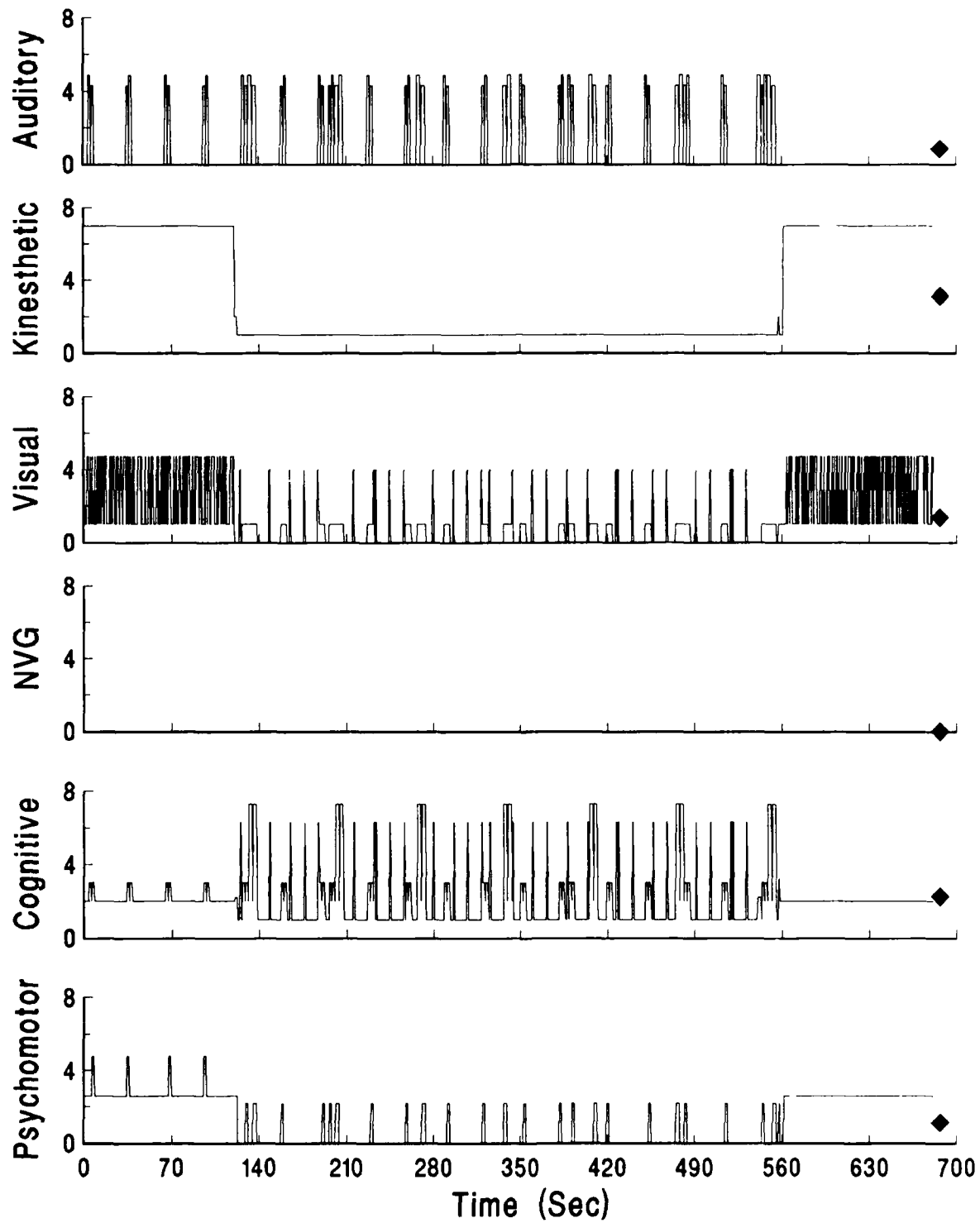
Segment 30: Landing (LZ, External Load) [NVG]
Pilot - UH-60A



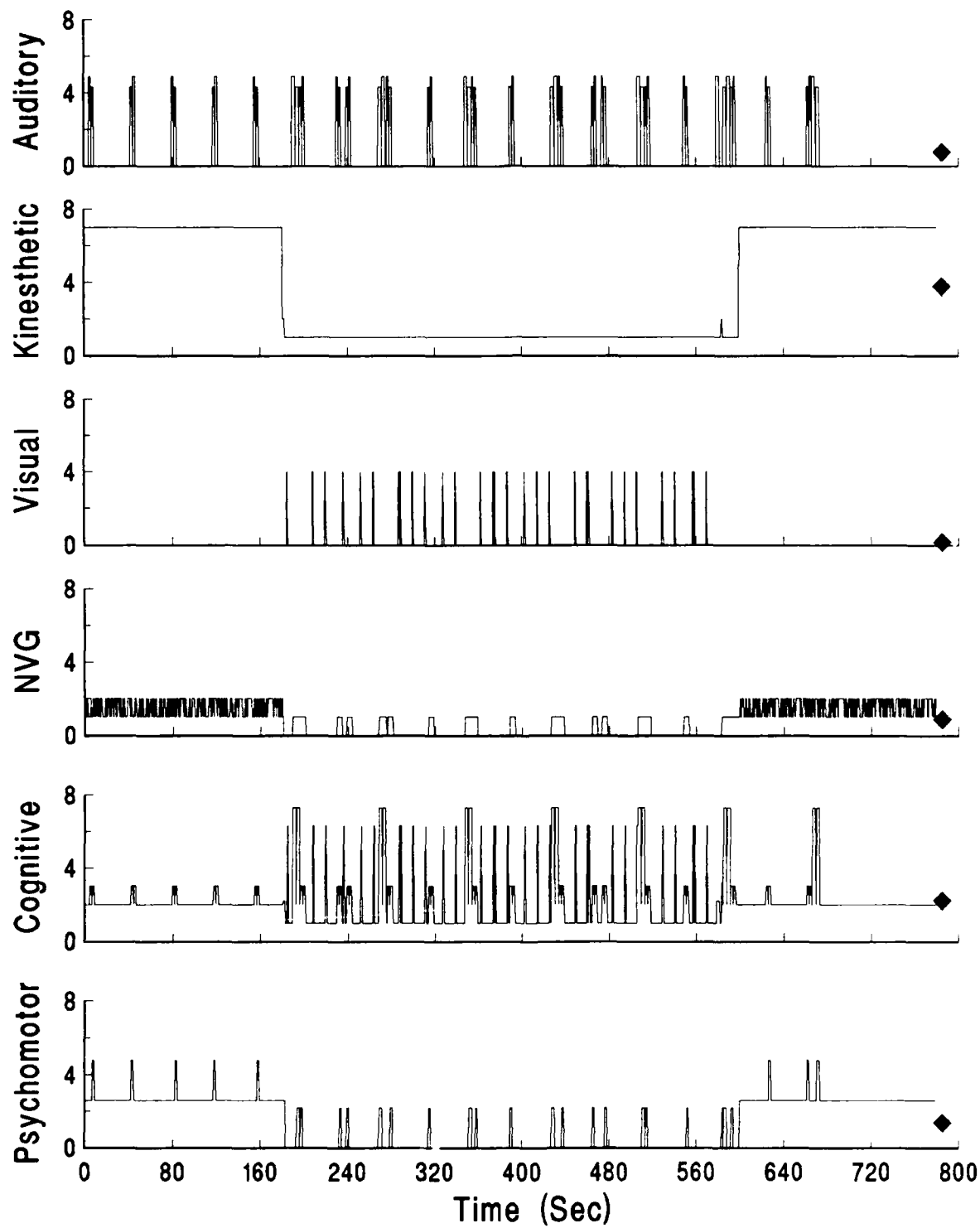
Segment 31: Before Takeoff (LZ)
Pilot - UH-60A



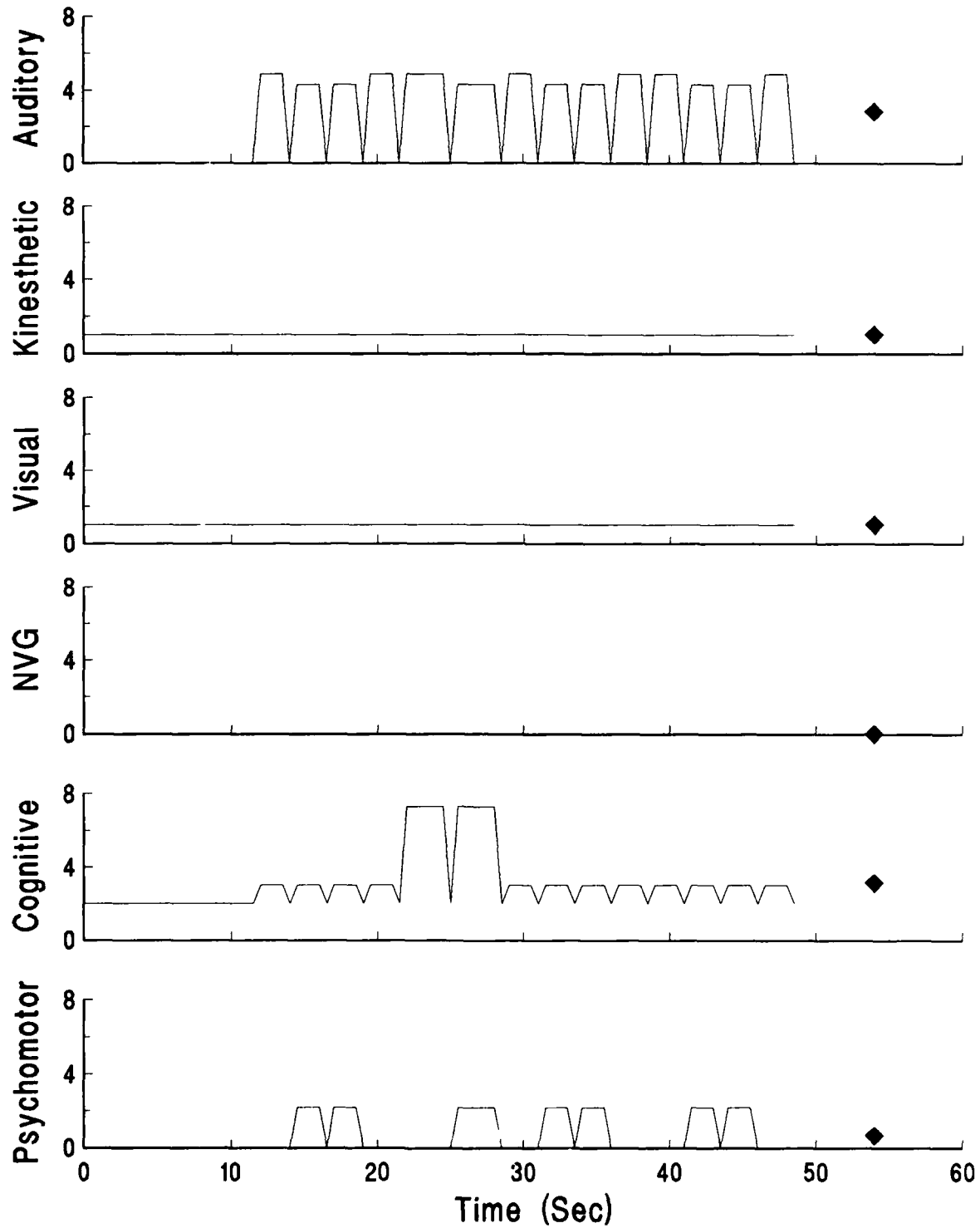
Segment 32: FARP Procedures
Pilot - UH-60A



Segment 33: FARP Procedures [NVG]
Pilot - UH-60A



Segment 34: Before Takeoff (FARP)
Pilot - UH-60A

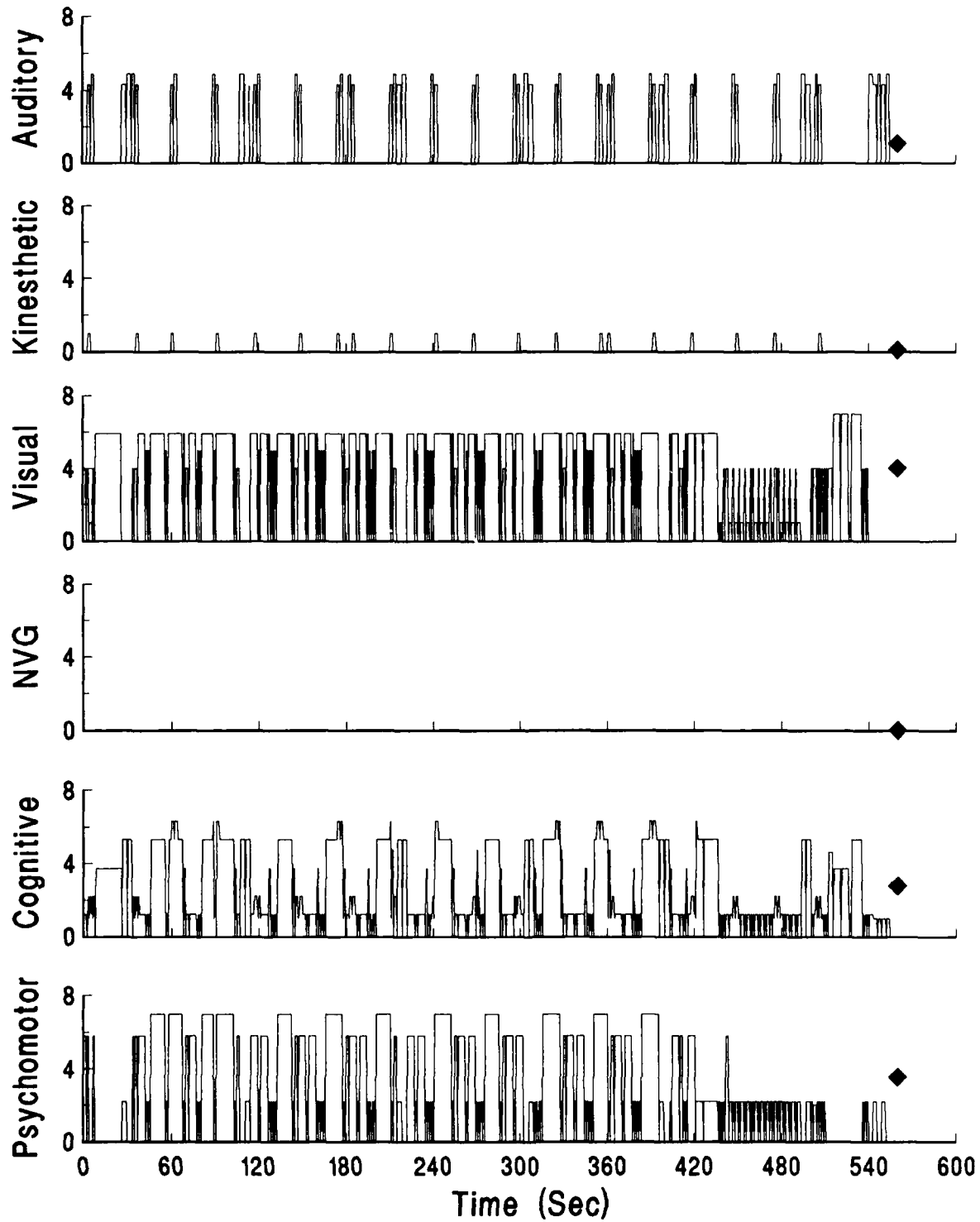


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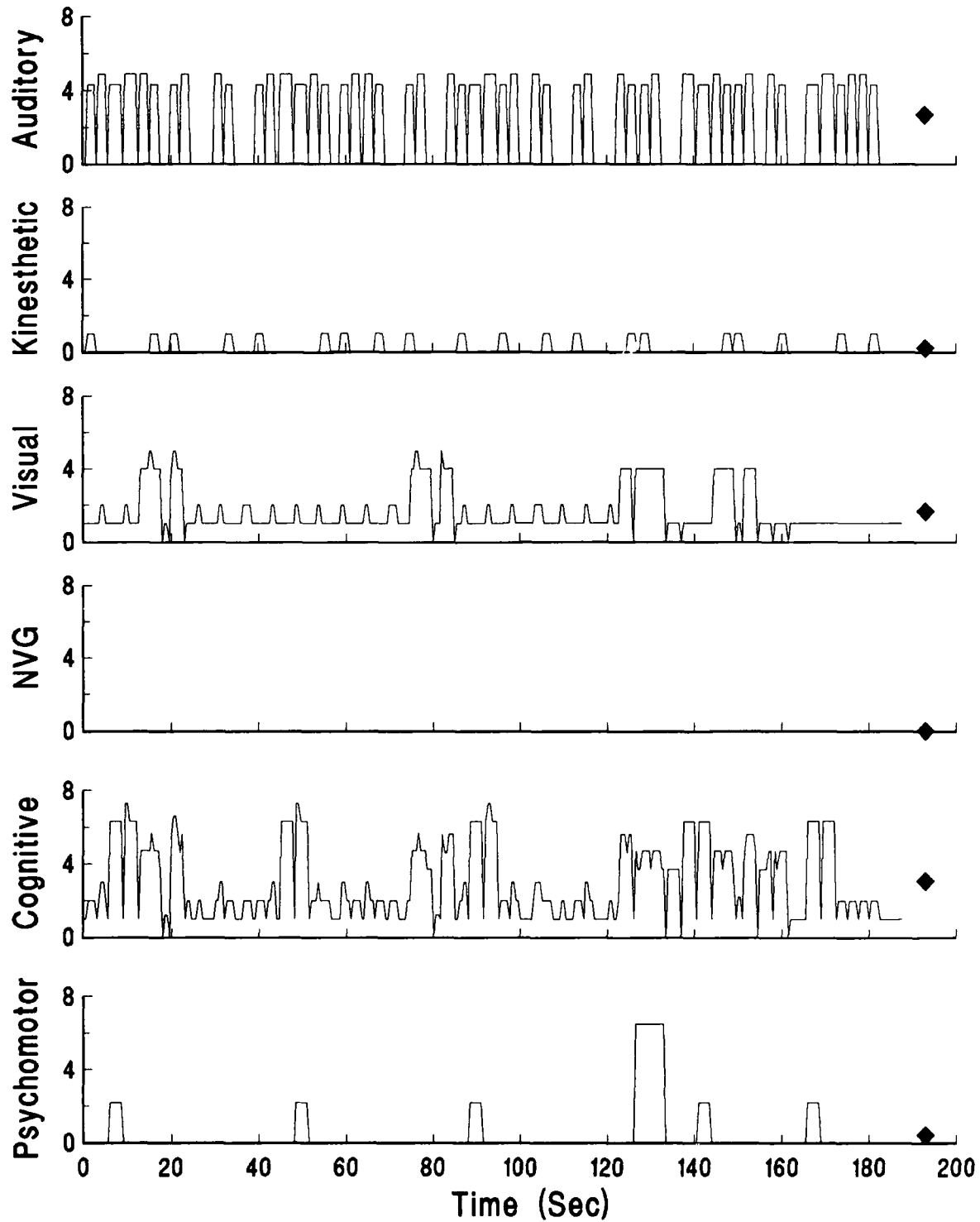
UH-60A COPILOT WORKLOAD PREDICTION GRAPHS

This appendix contains the workload prediction graphs for the copilot for each of the 34 UH-60A segments. Each page displays the predicted copilot workload for one segment using 6 graphs; one for each workload component. The diamond at the end of each graph indicates the average component workload for the segment.

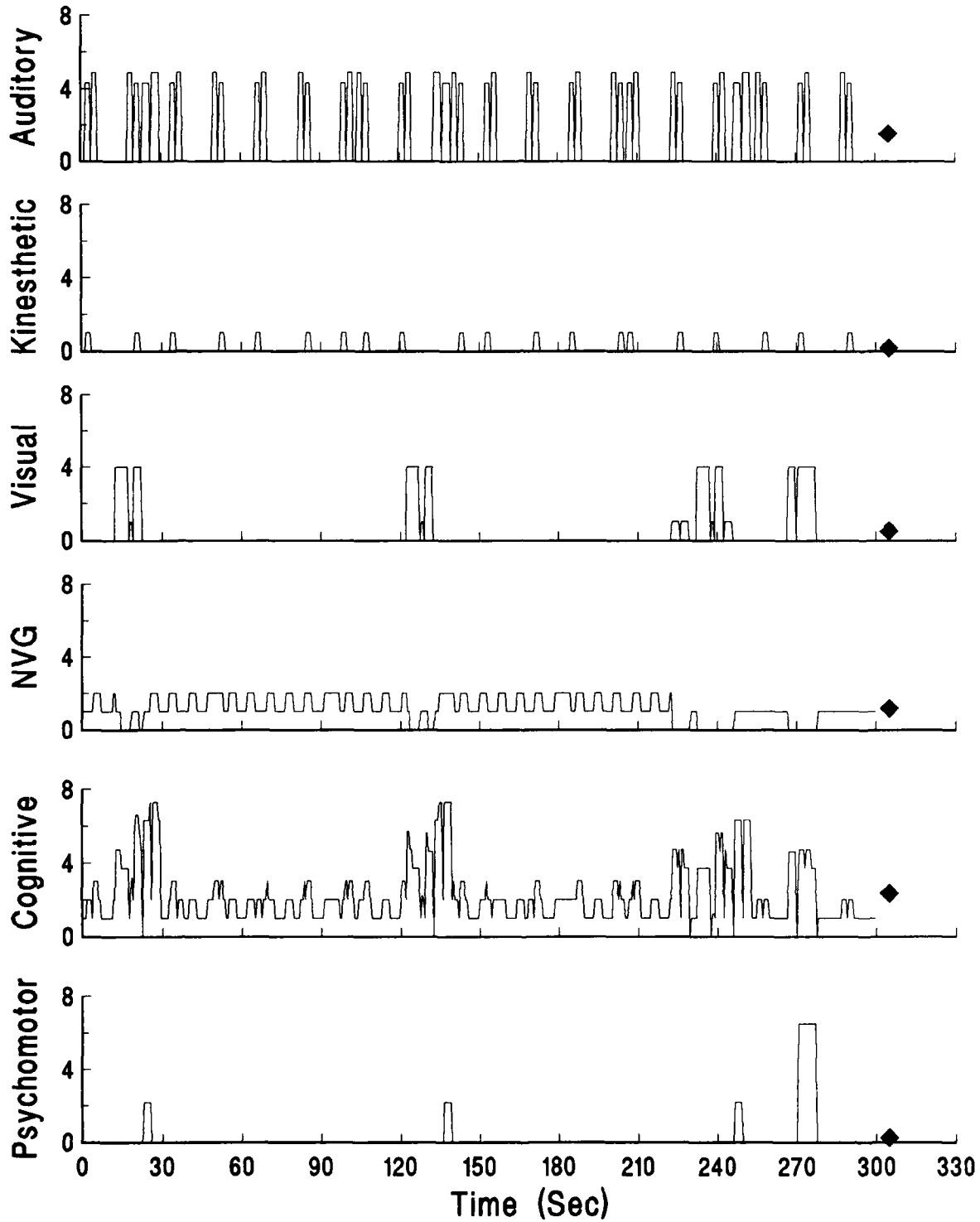
Segment 01: Before Takeoff (Assembly Area)
Copilot - UH-60A



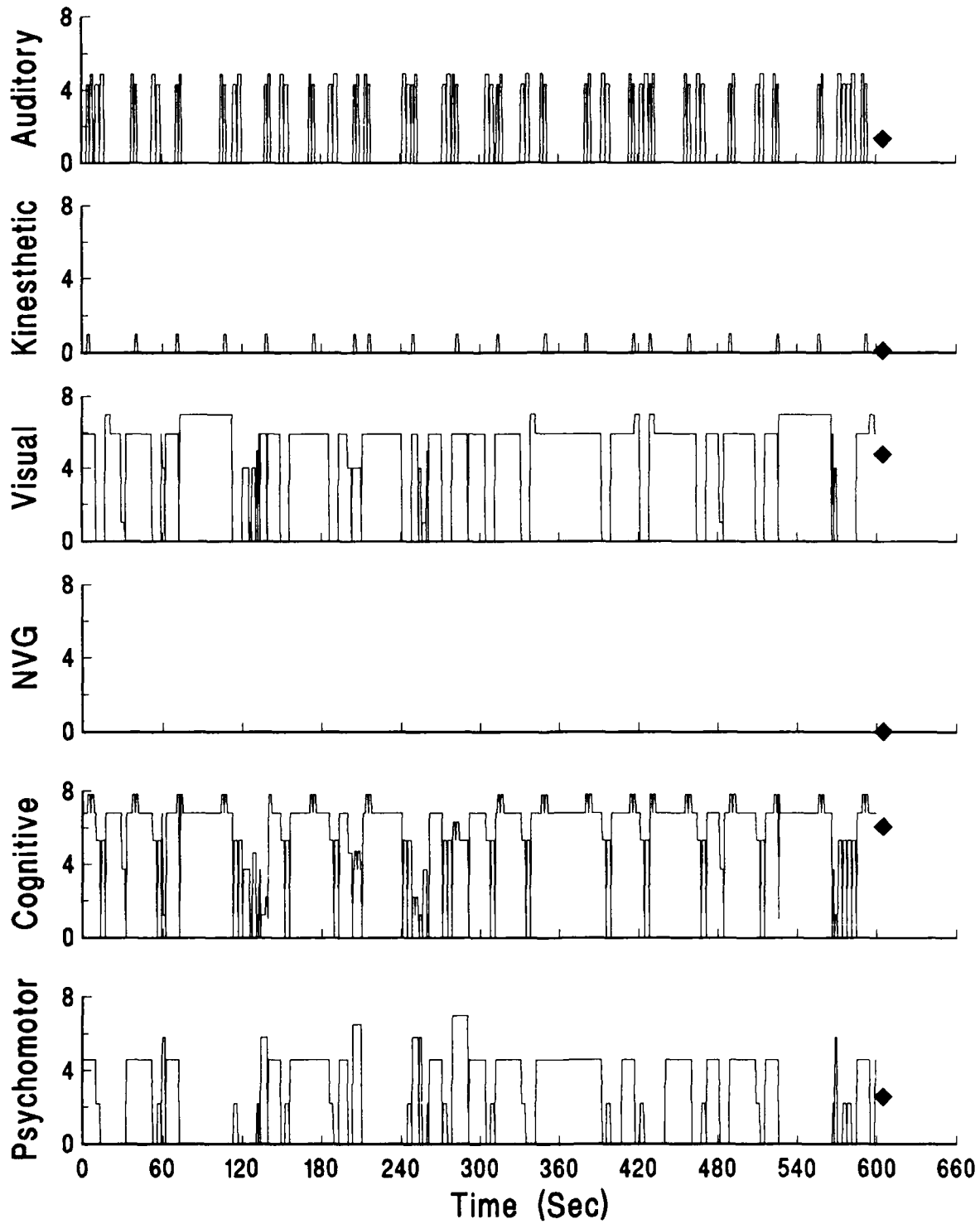
Segment 02: Takeoff
Copilot - UH-60A



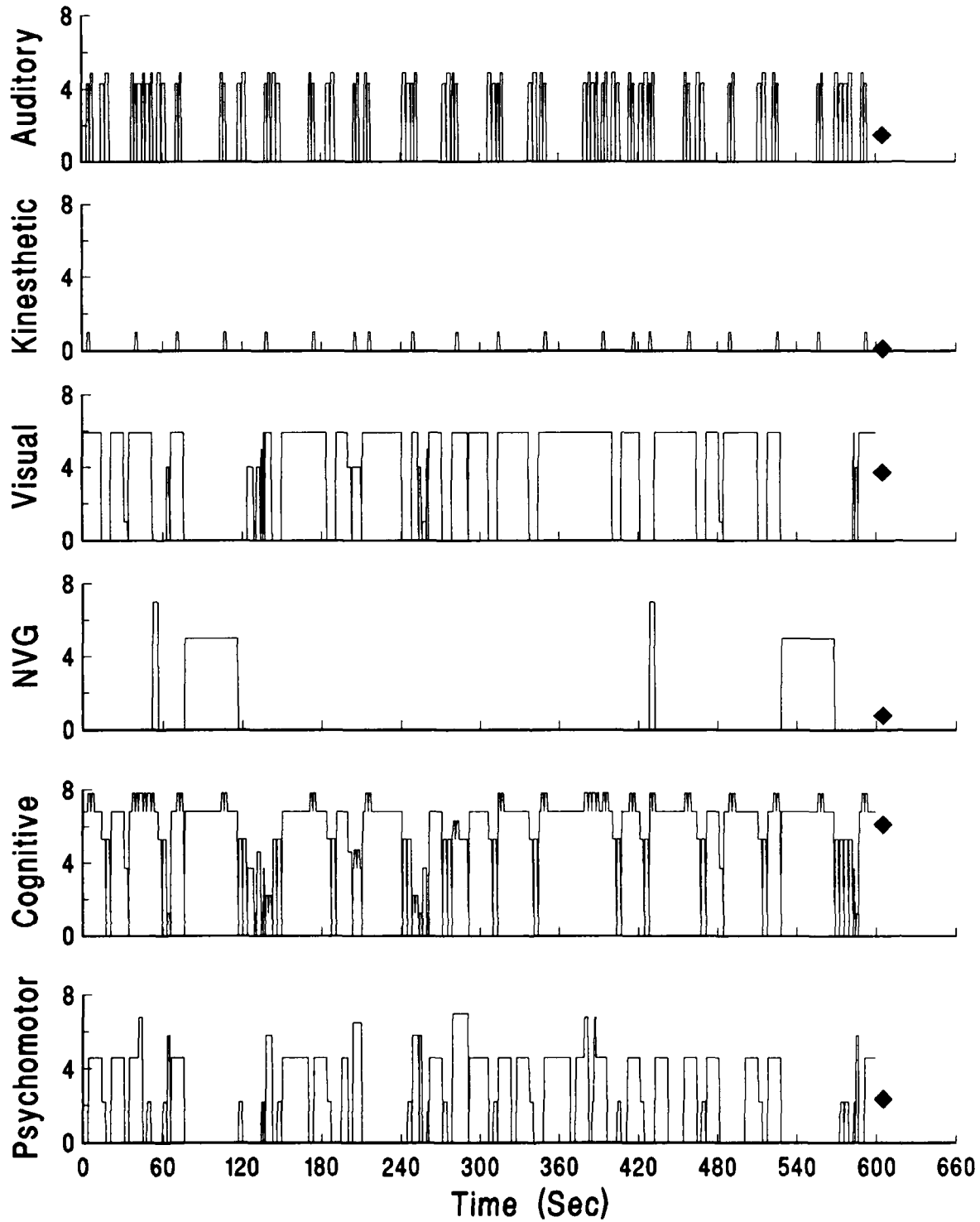
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Copilot - UH-60A



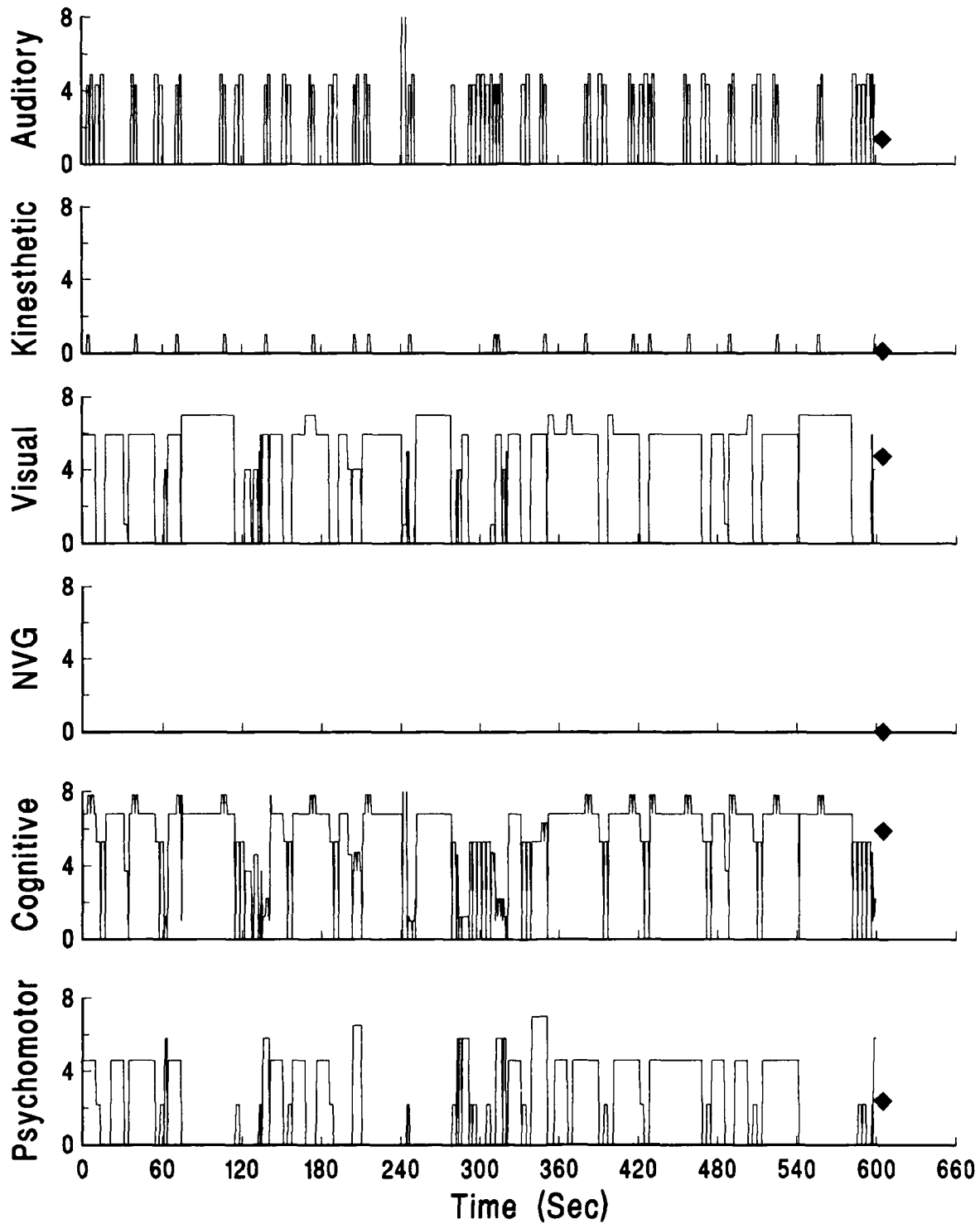
Segment 04: Contour Flight
Copilot - UH-60A



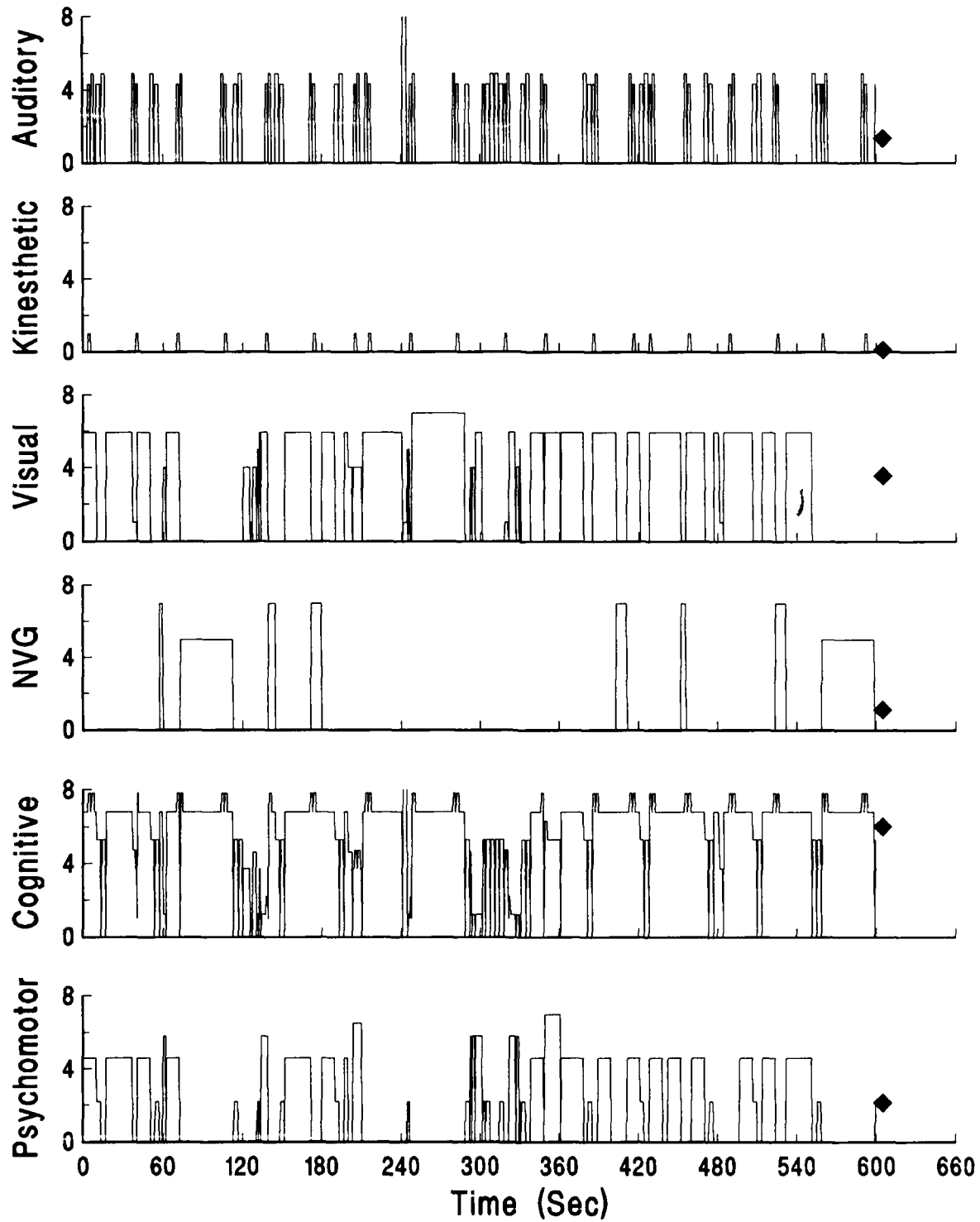
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Copilot - UH-60A



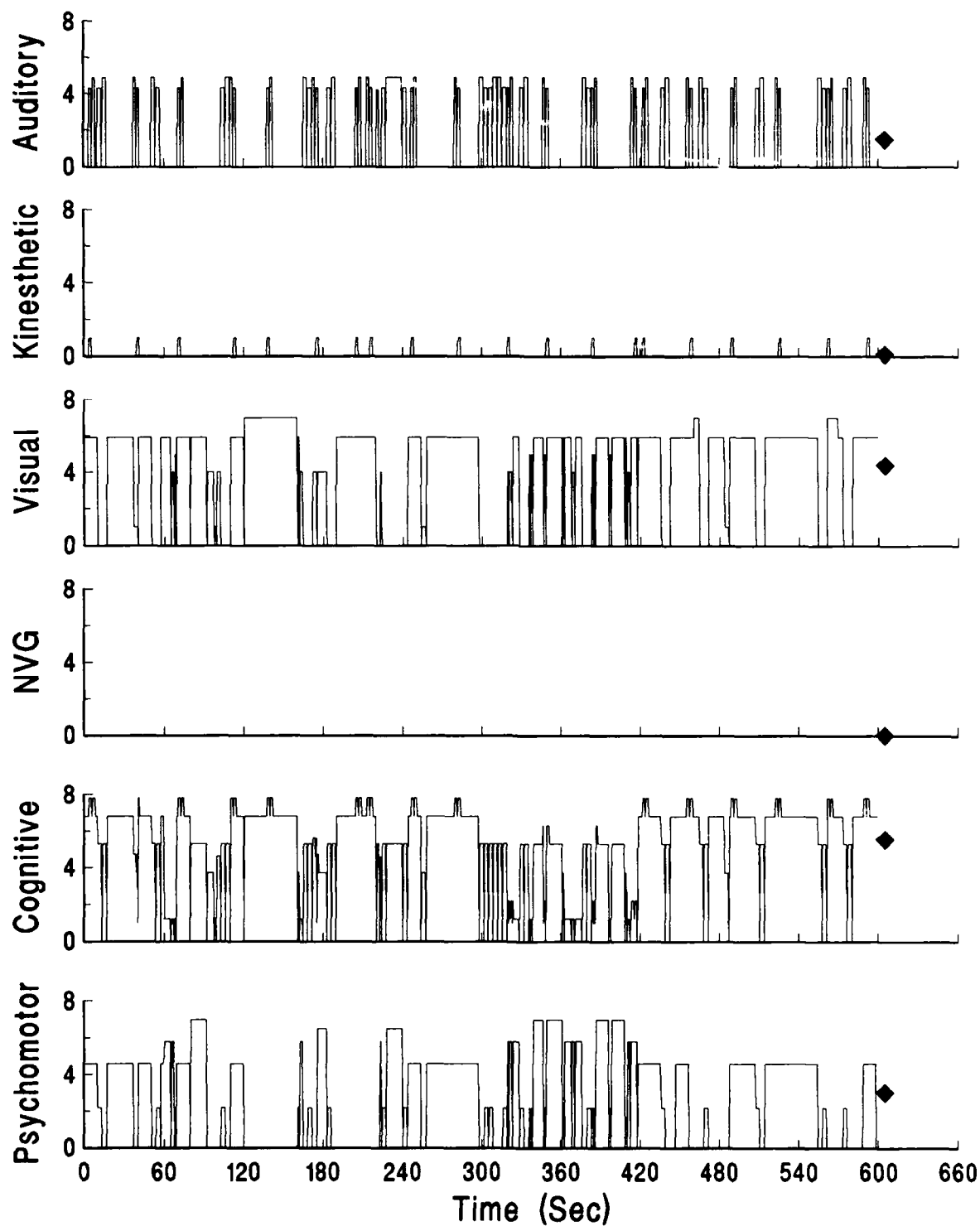
Segment 06: Contour Flight (Threat)
Copilot - UH-60A



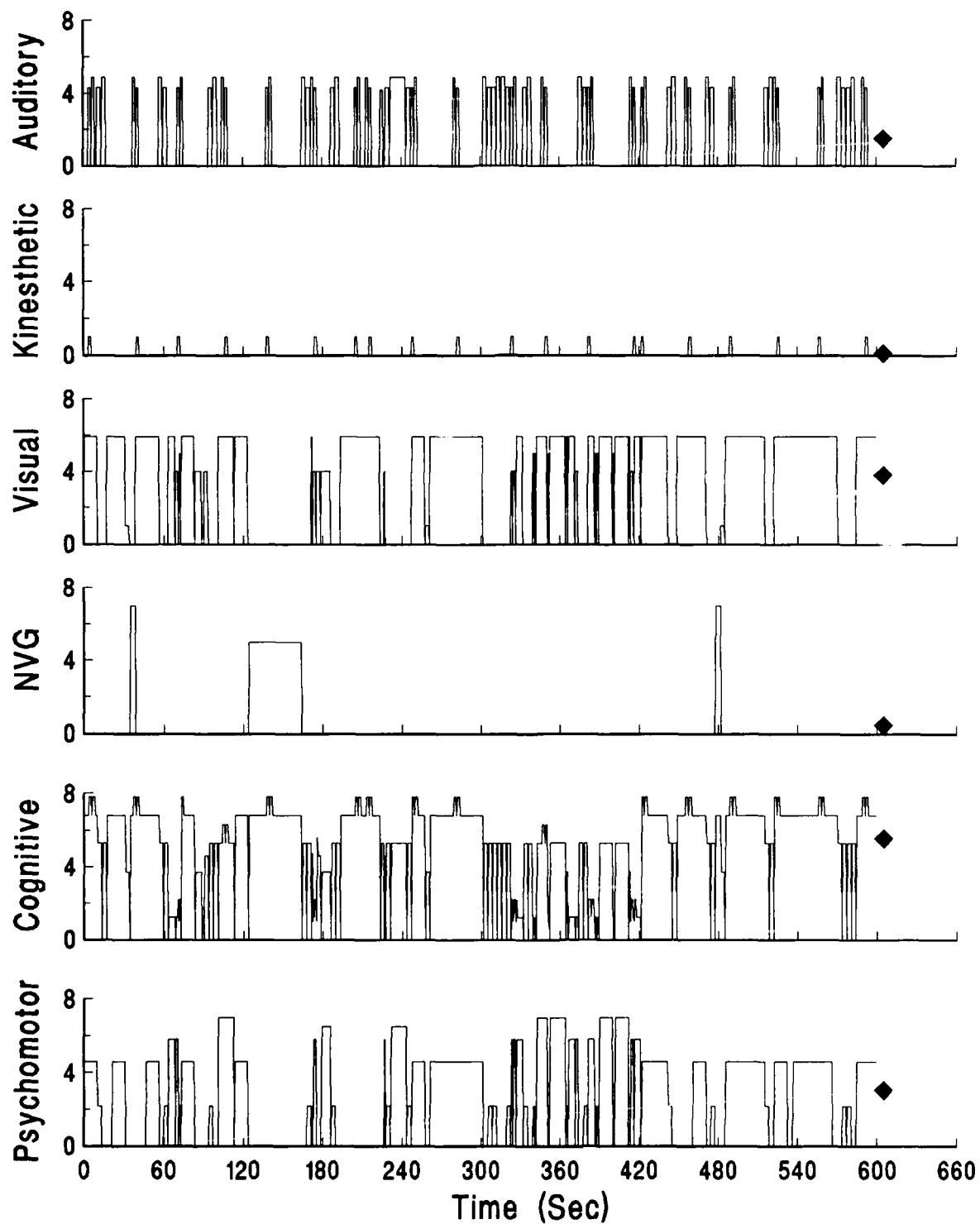
Segment 07: Contour Flight (Threat) [NVG]
Copilot - UH-60A



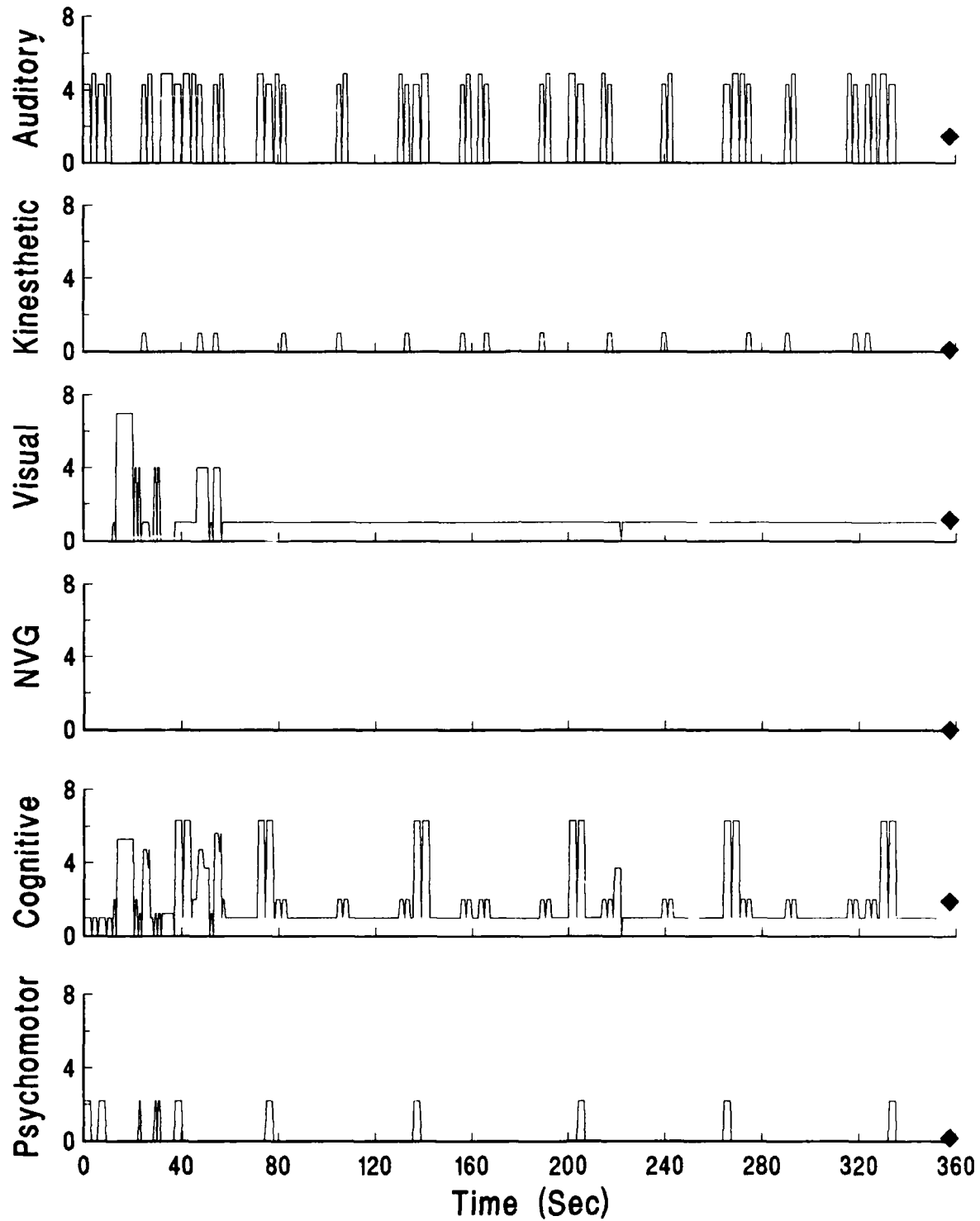
Segment 08: Contour Flight (Mission Change)
Copilot - UH-60A



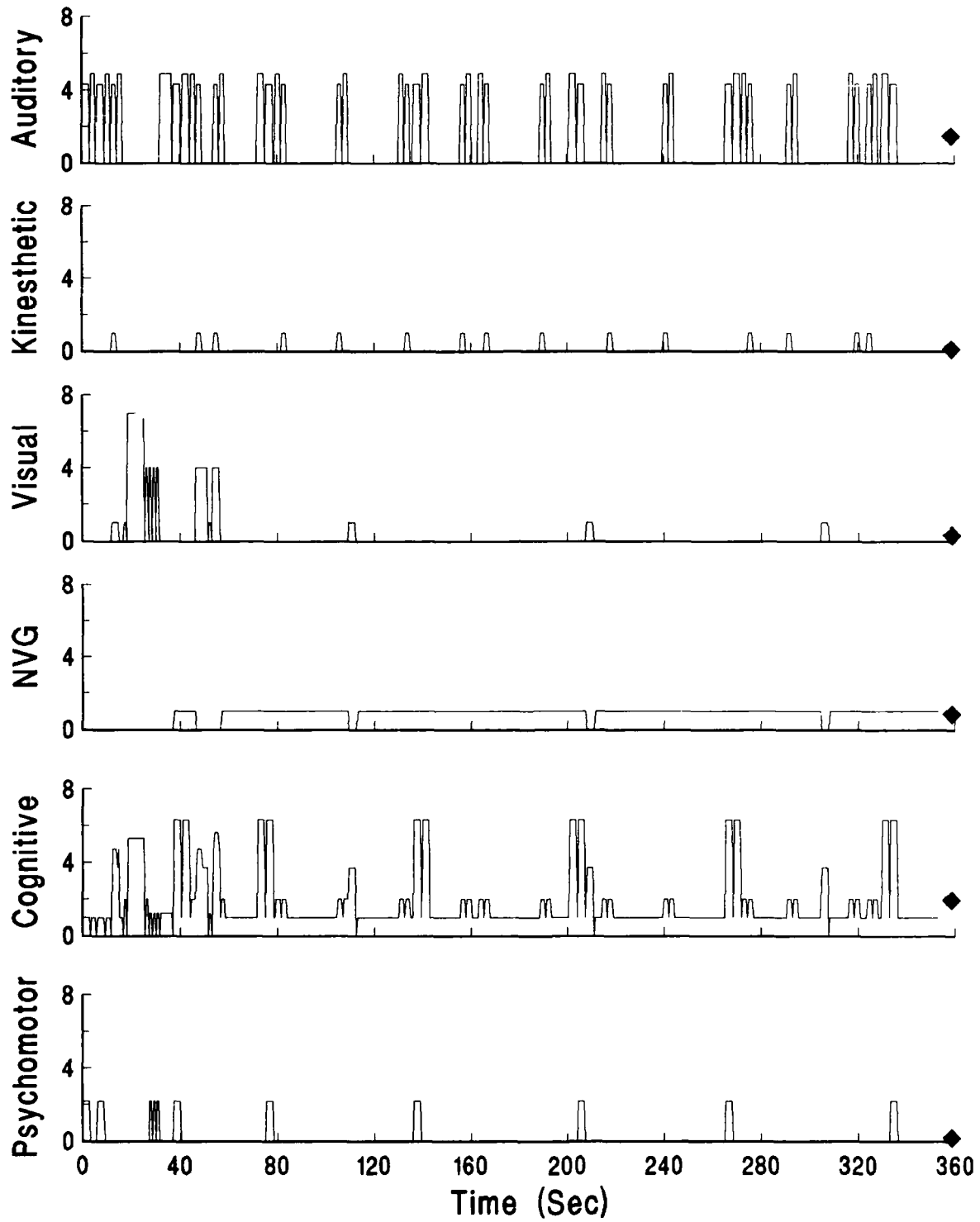
Segment 09: Contour Flight (Mission Change) [NVG]
Copilot - UH-60A



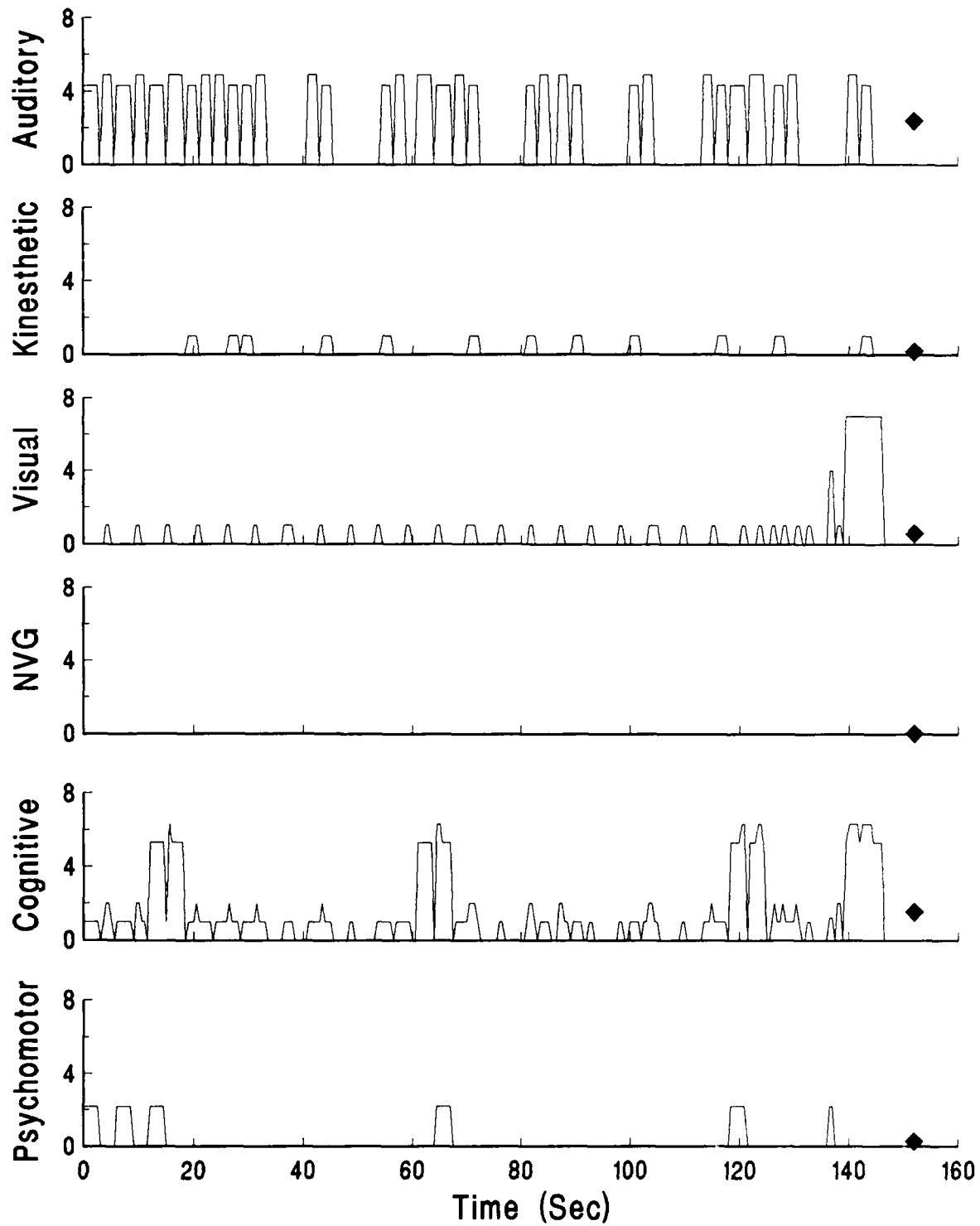
Segment 10: Approach
Copilot - UH-60A



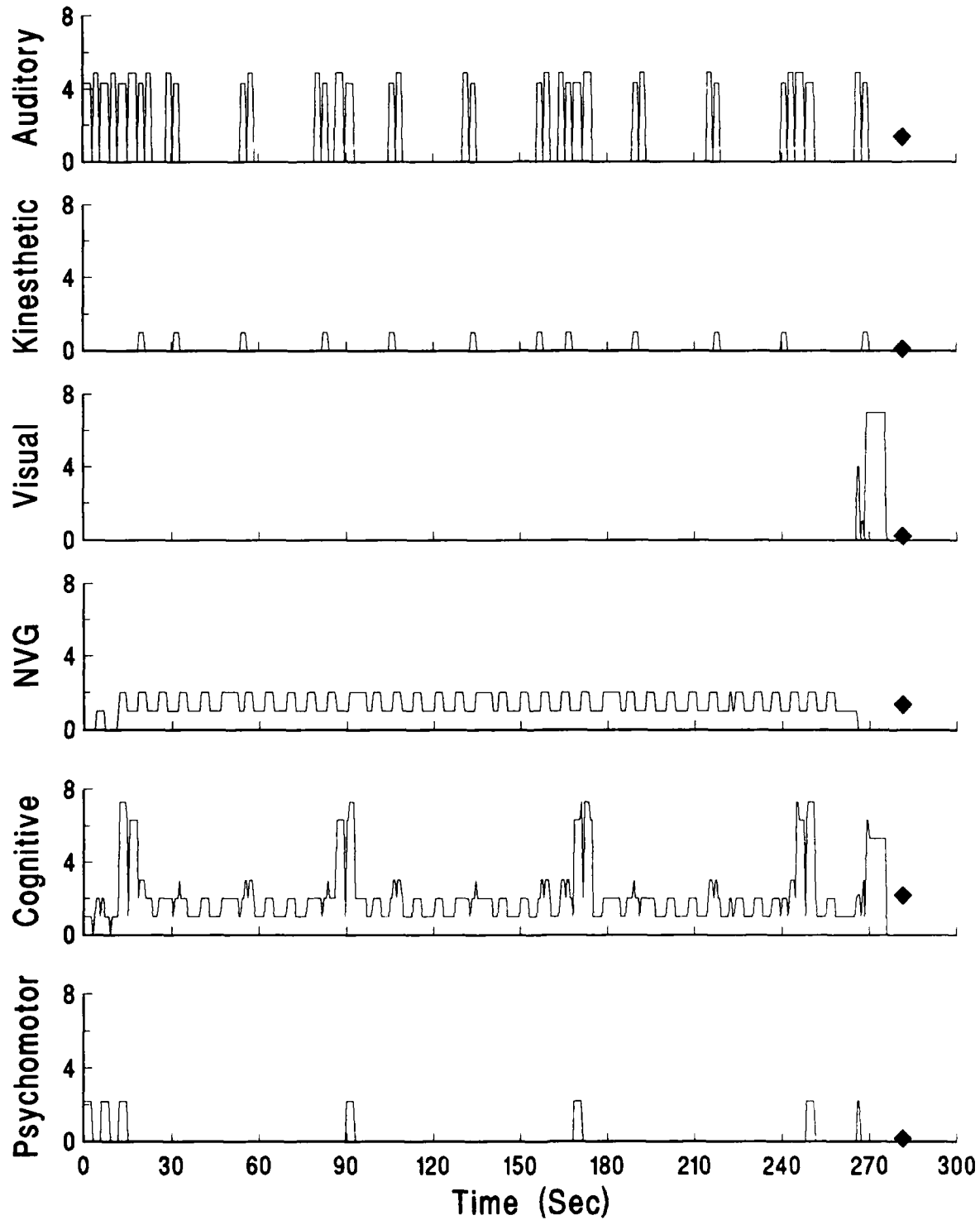
Segment 11: Approach [NVG]
Copilot - UH-60A



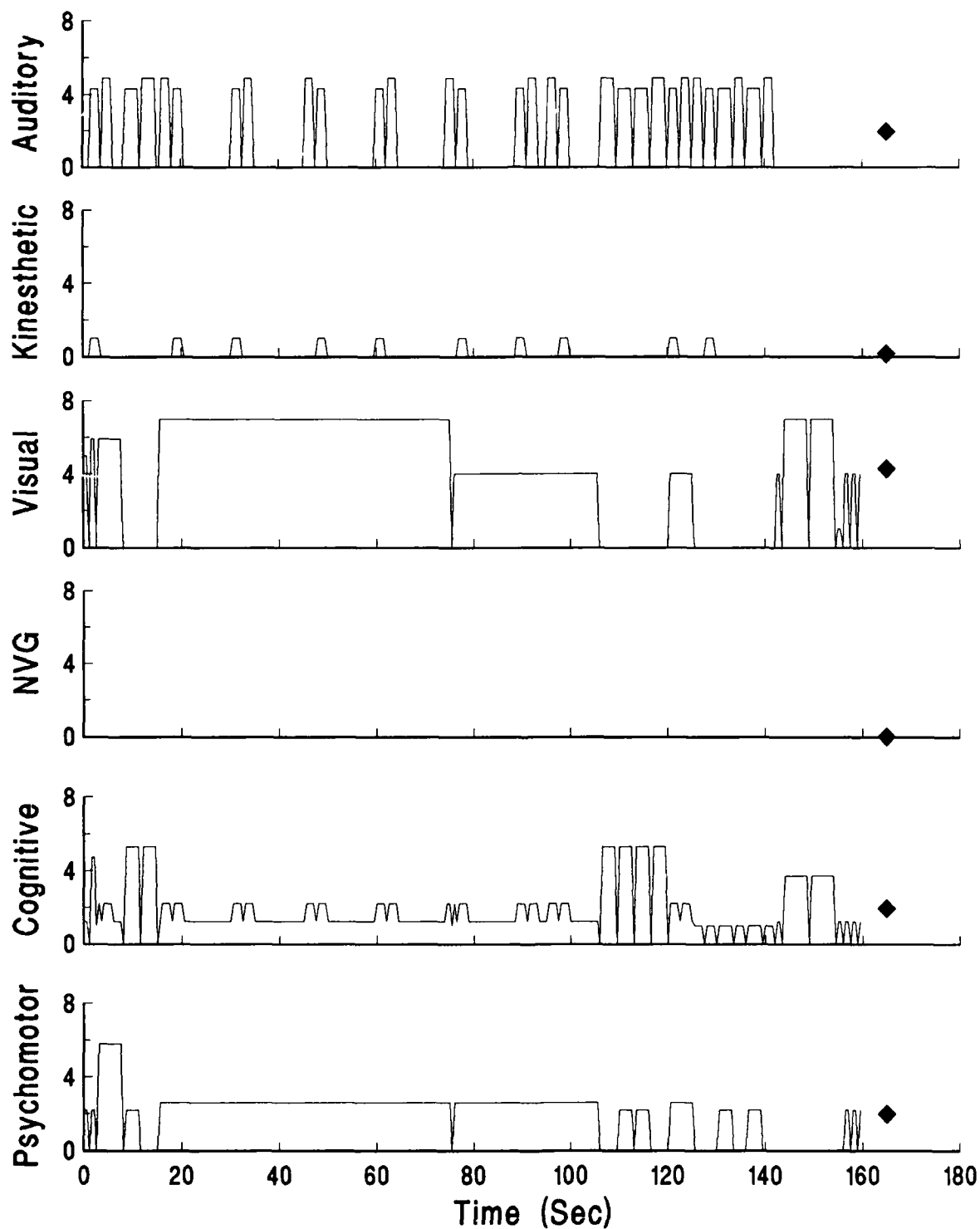
Segment 12: Landing
Copilot - UH-60A



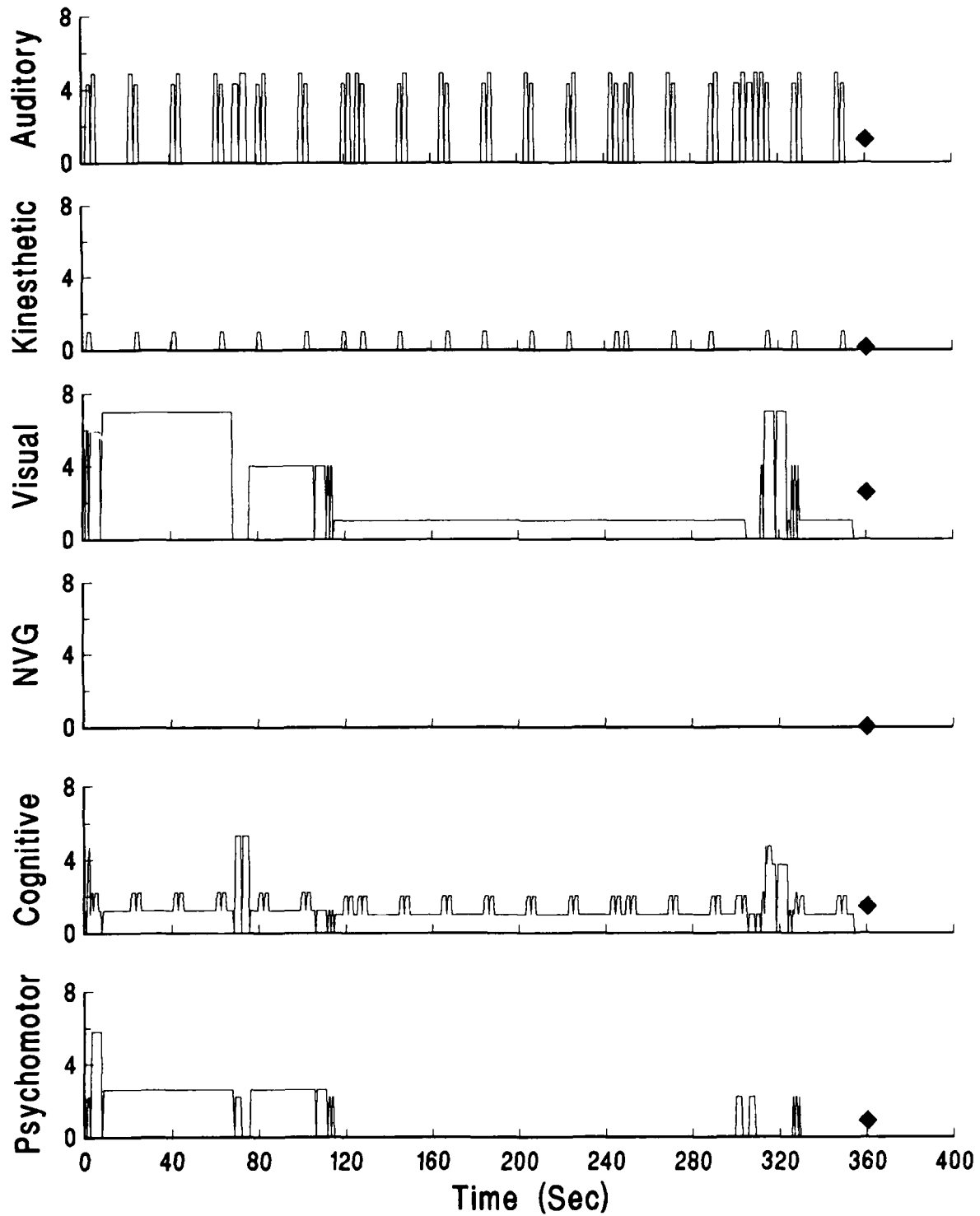
Segment 13: Landing [NVG]
Copilot - UH-60A



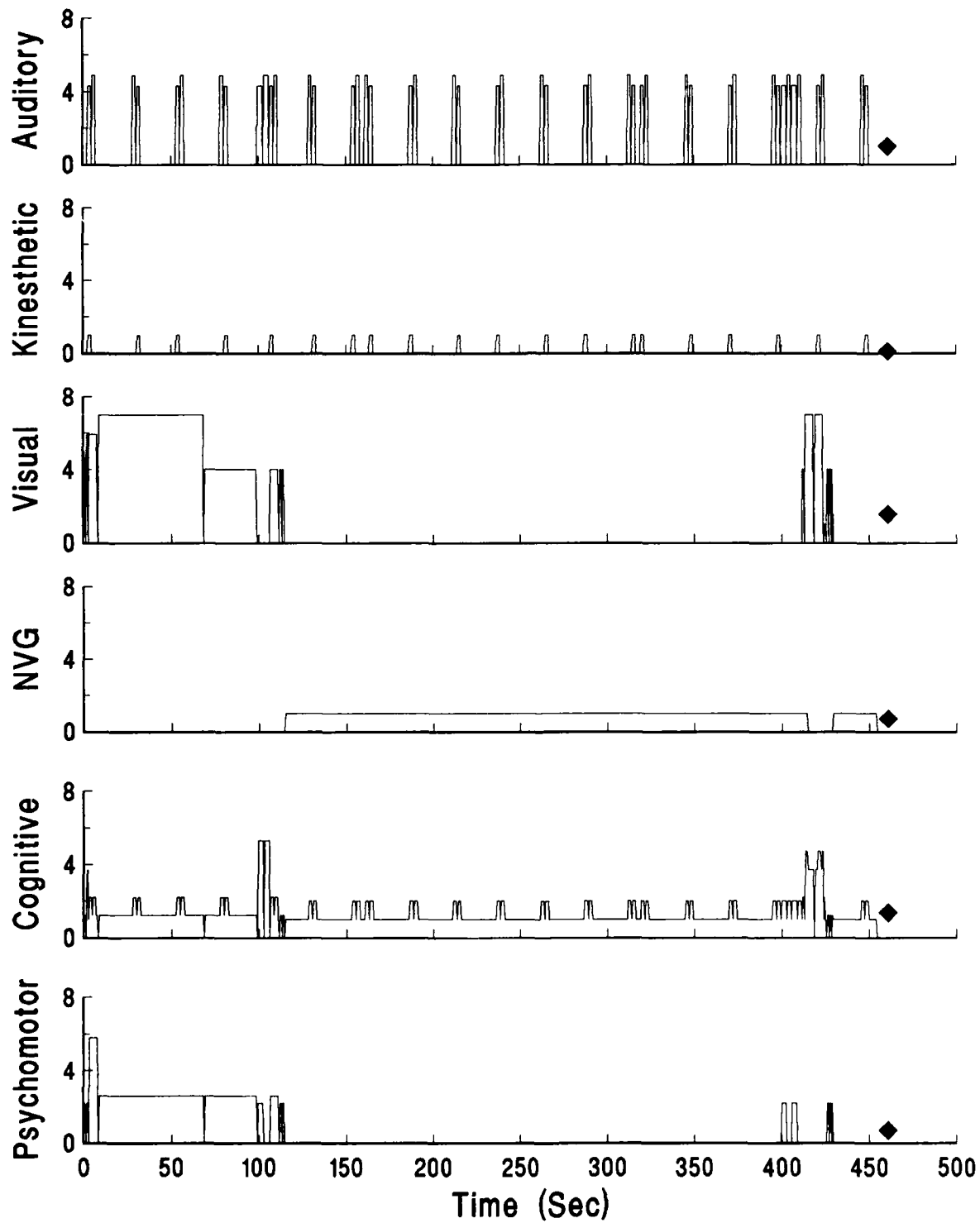
Segment 14: Before Takeoff (Internal Load) Copilot - UH-60A



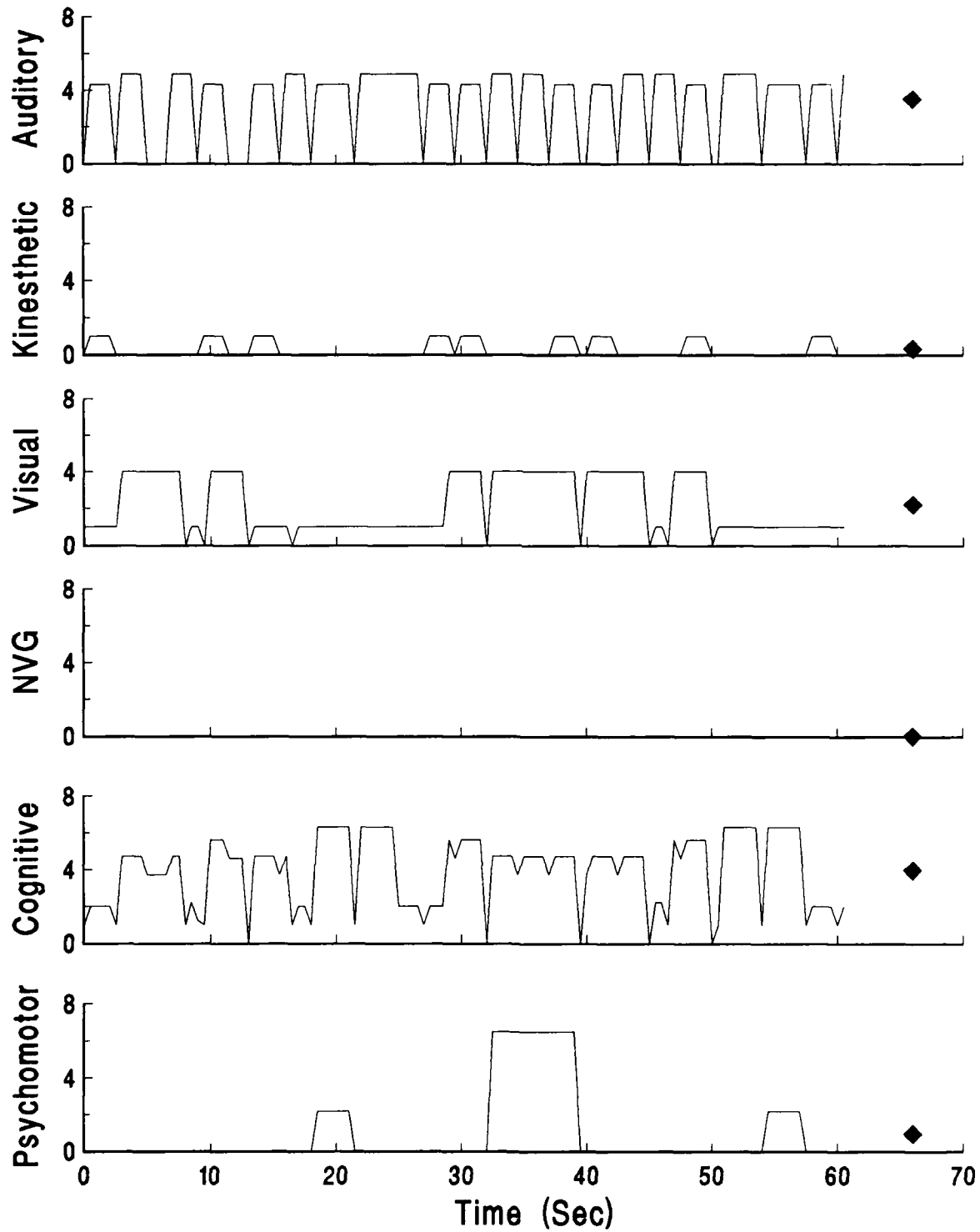
Segment 15: Before Takeoff (External Load)
Copilot - UH-60A



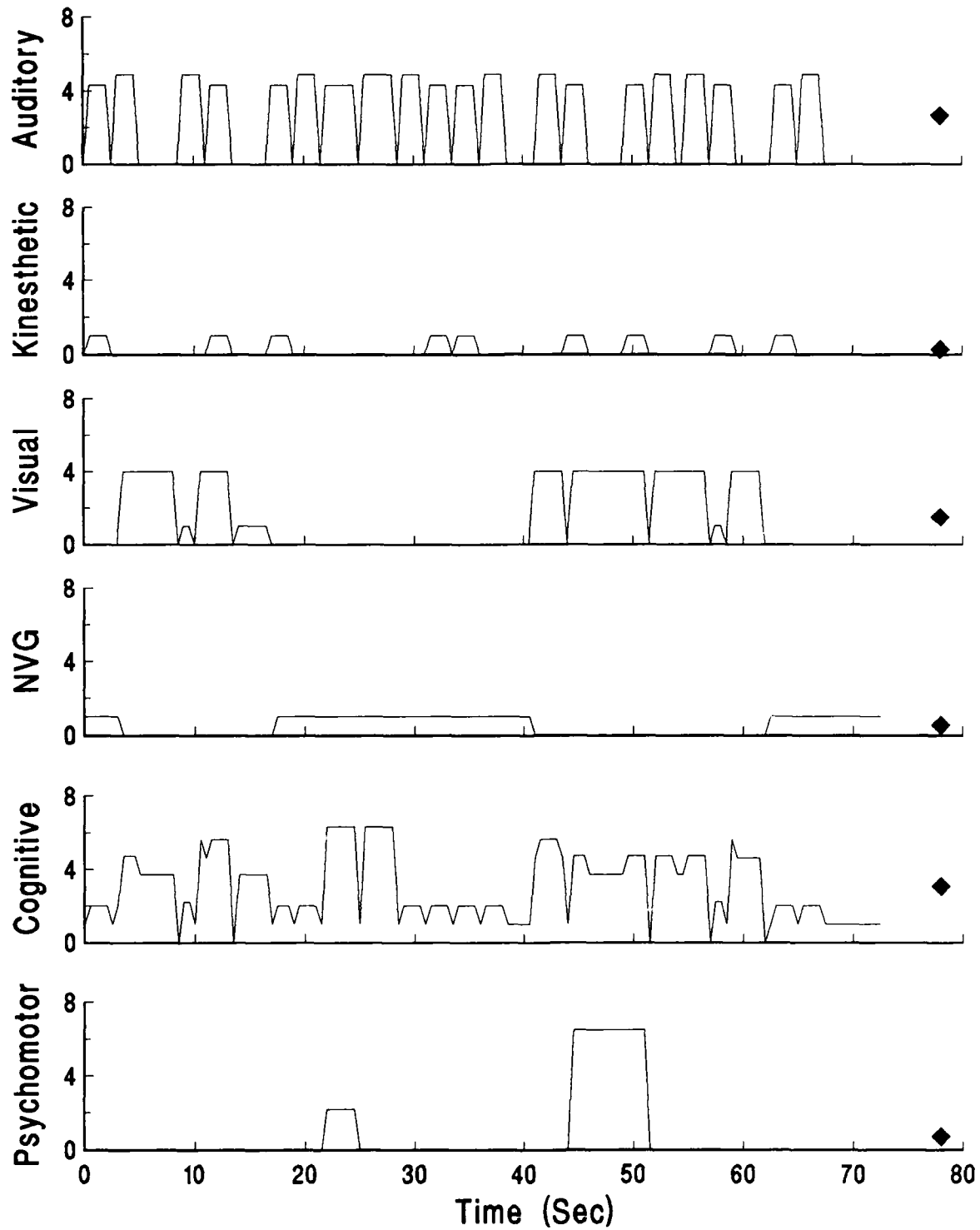
Segment 16: Before Takeoff (External Load) [NVG] Copilot - UH-60A



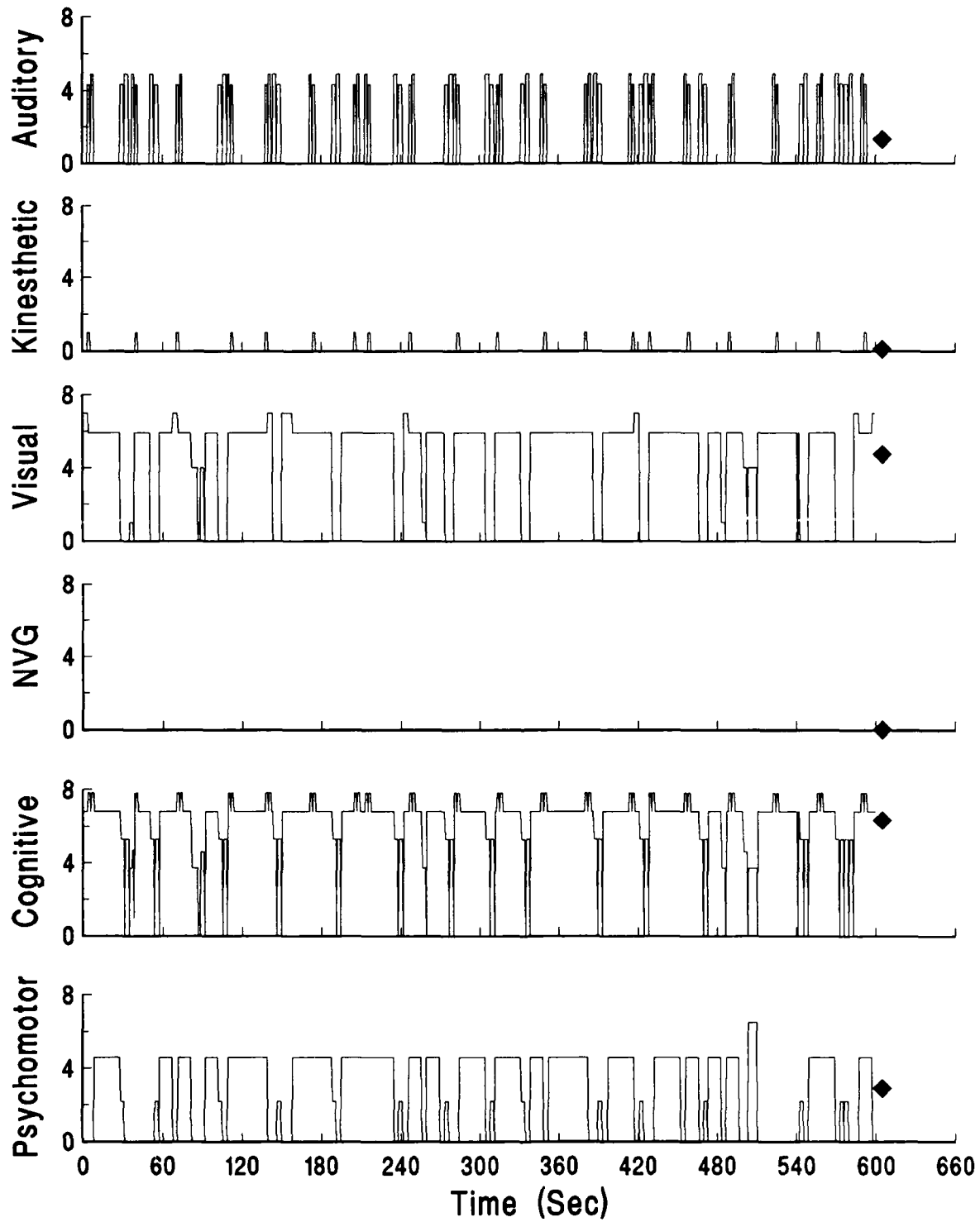
Segment 17: Takeoff (External)
Copilot - UH-60A



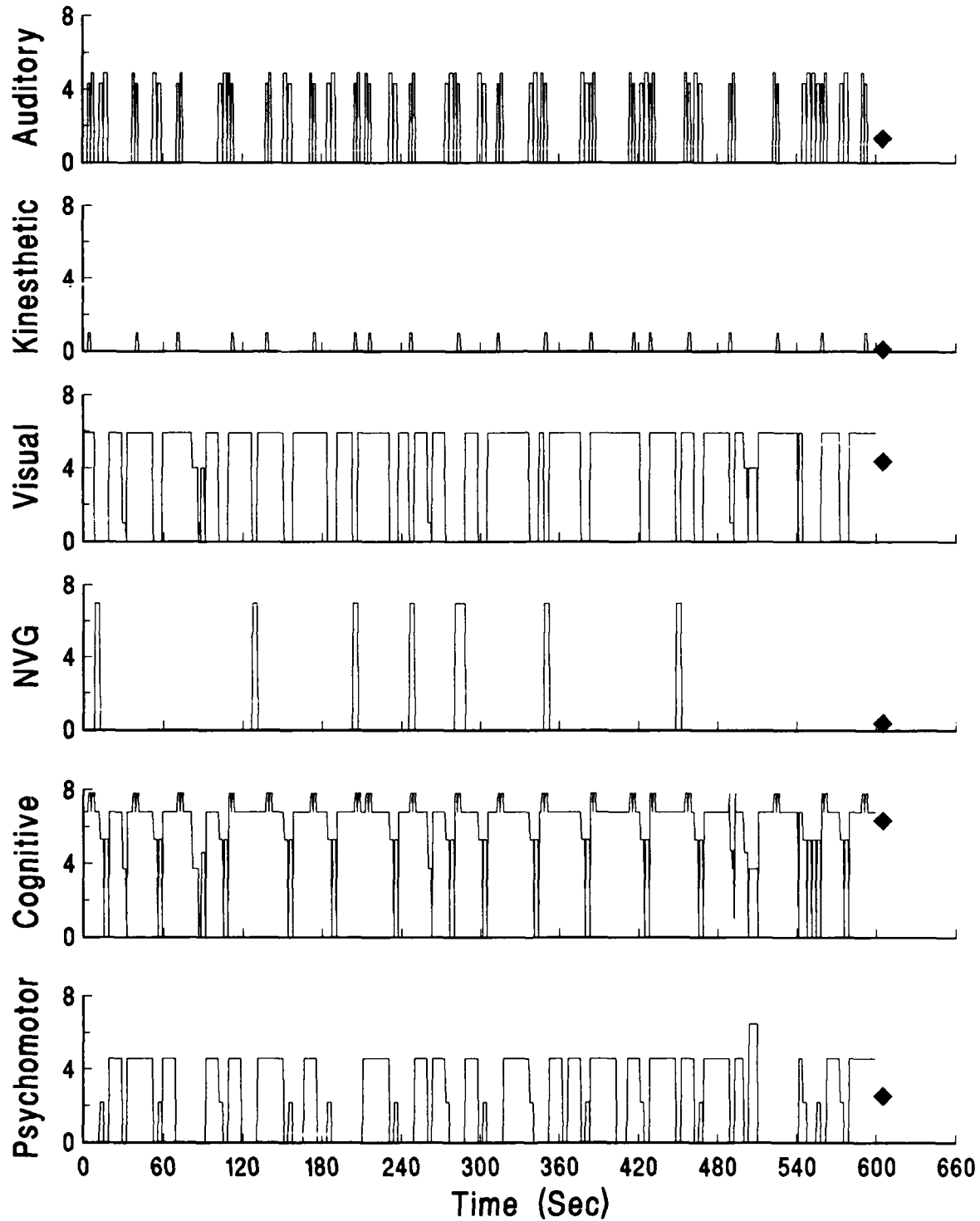
Segment 18: Takeoff (External) [NVG]
Copilot - UH-60A



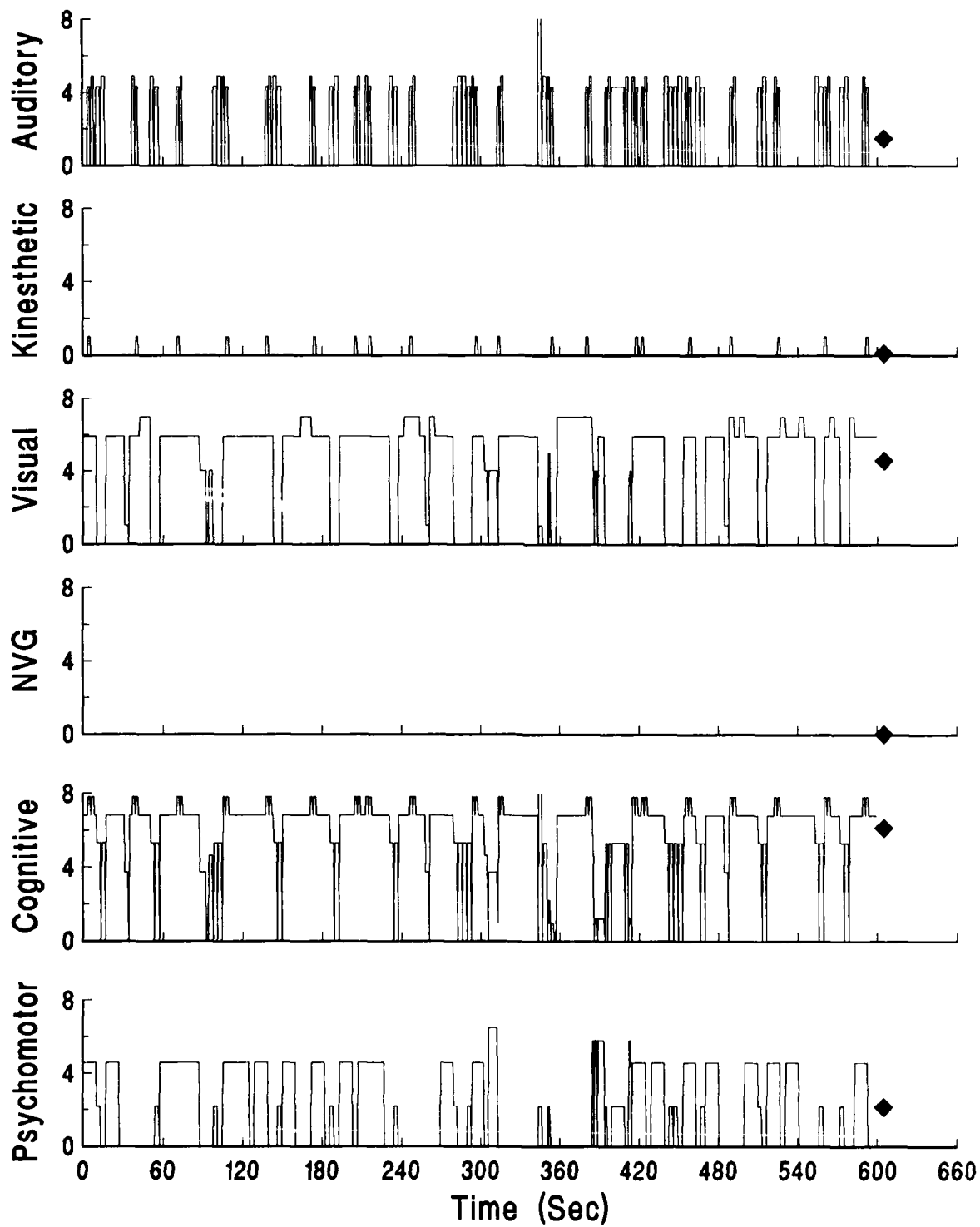
Segment 19: NOE Flight
Copilot - UH-60A



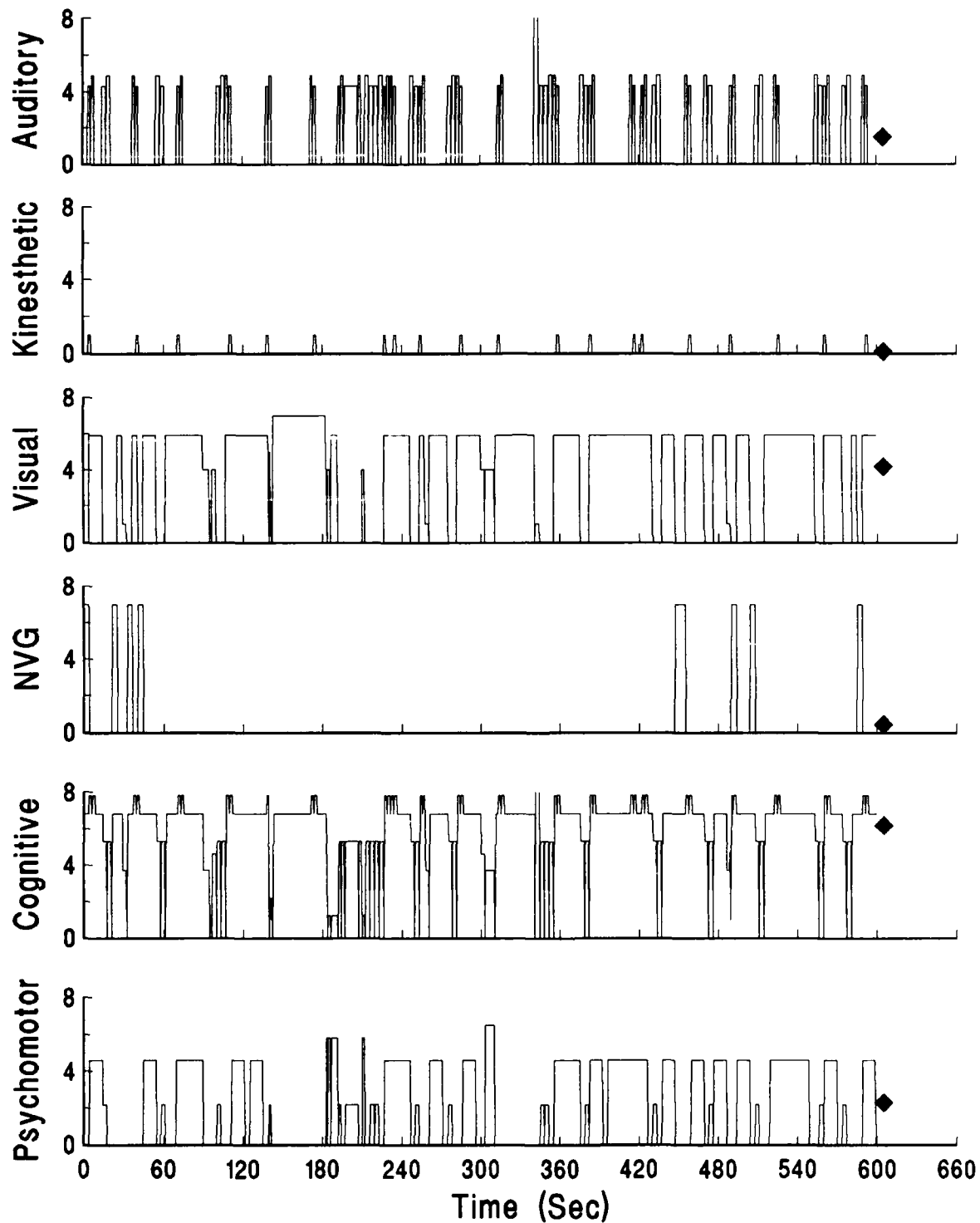
Segment 20: NOE Flight [NVG]
Copilot - UH-60A



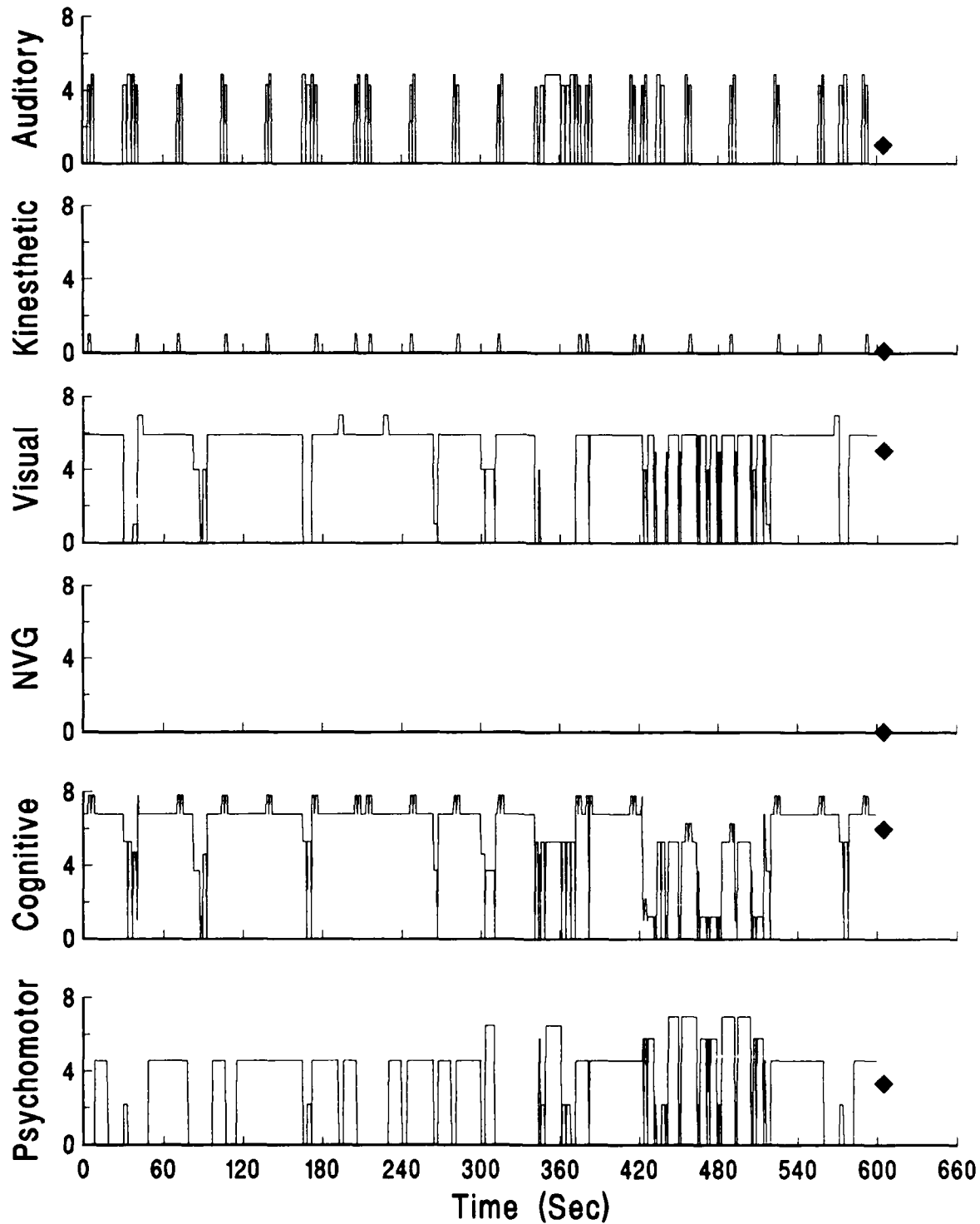
Segment 21: NOE Flight (Threat)
Copilot - UH-60A



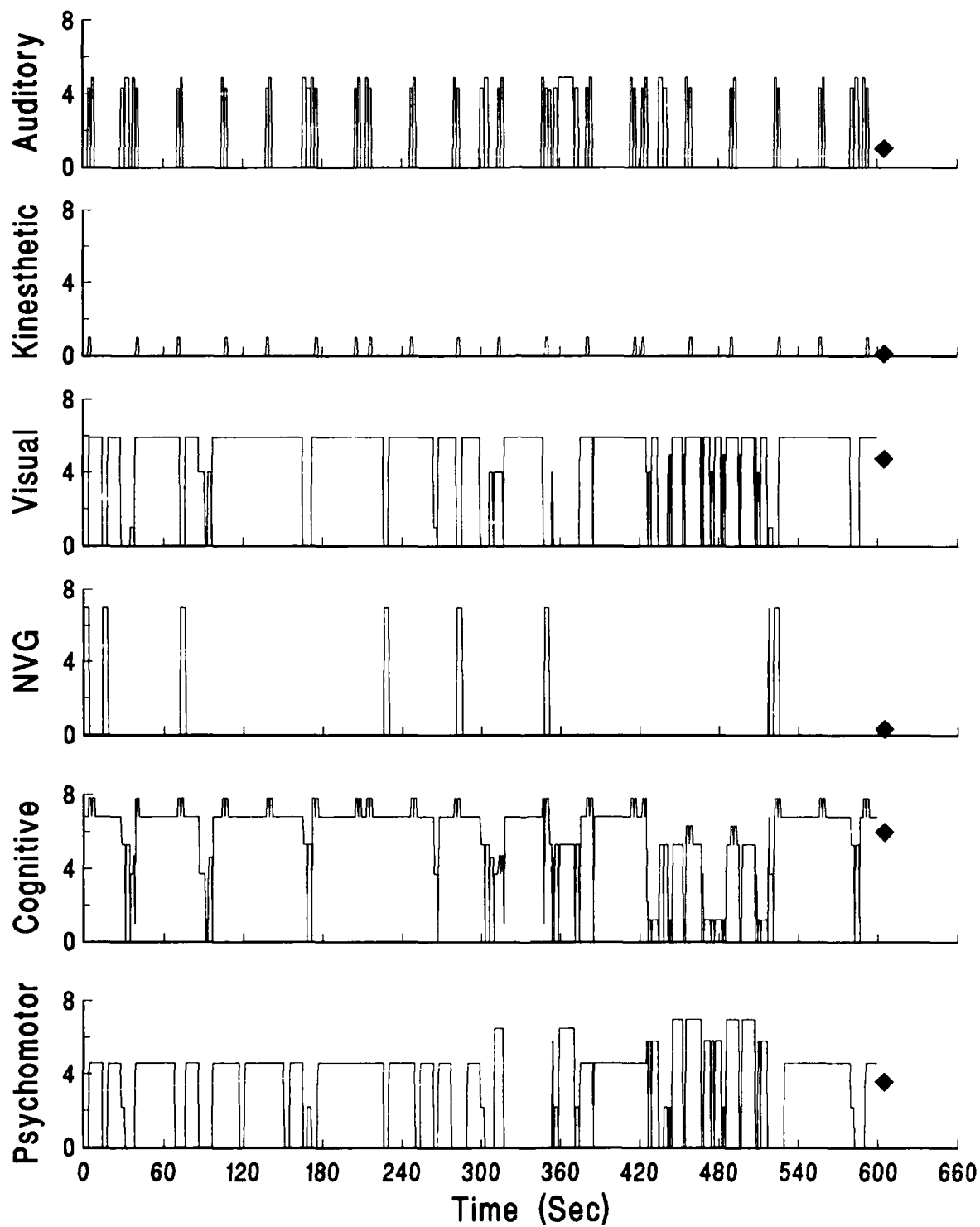
Segment 22: NOE Flight (Threat) [NVG]
Copilot - UH-60A



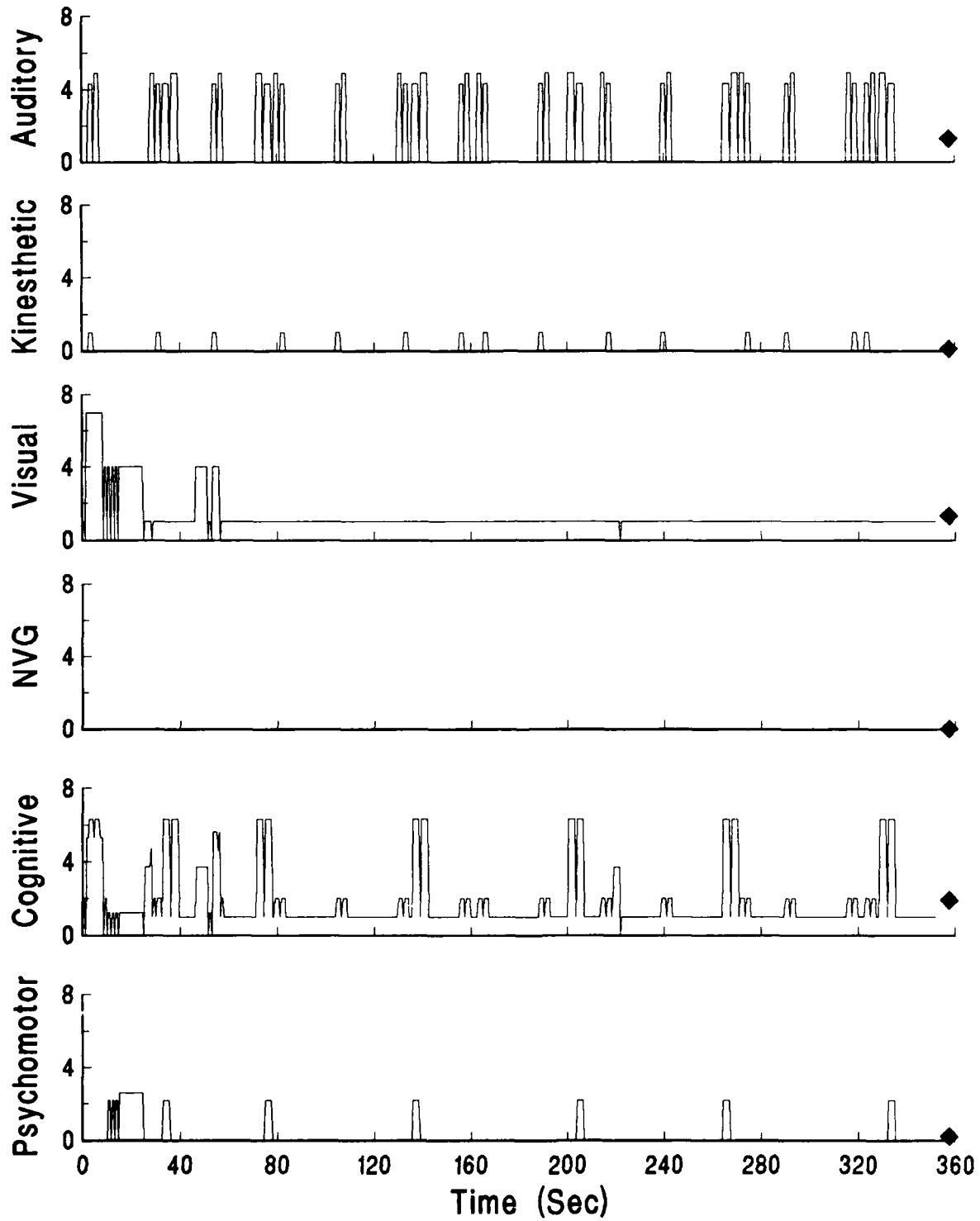
Segment 23: NOE Flight (Mission Change)
Copilot - UH-60A



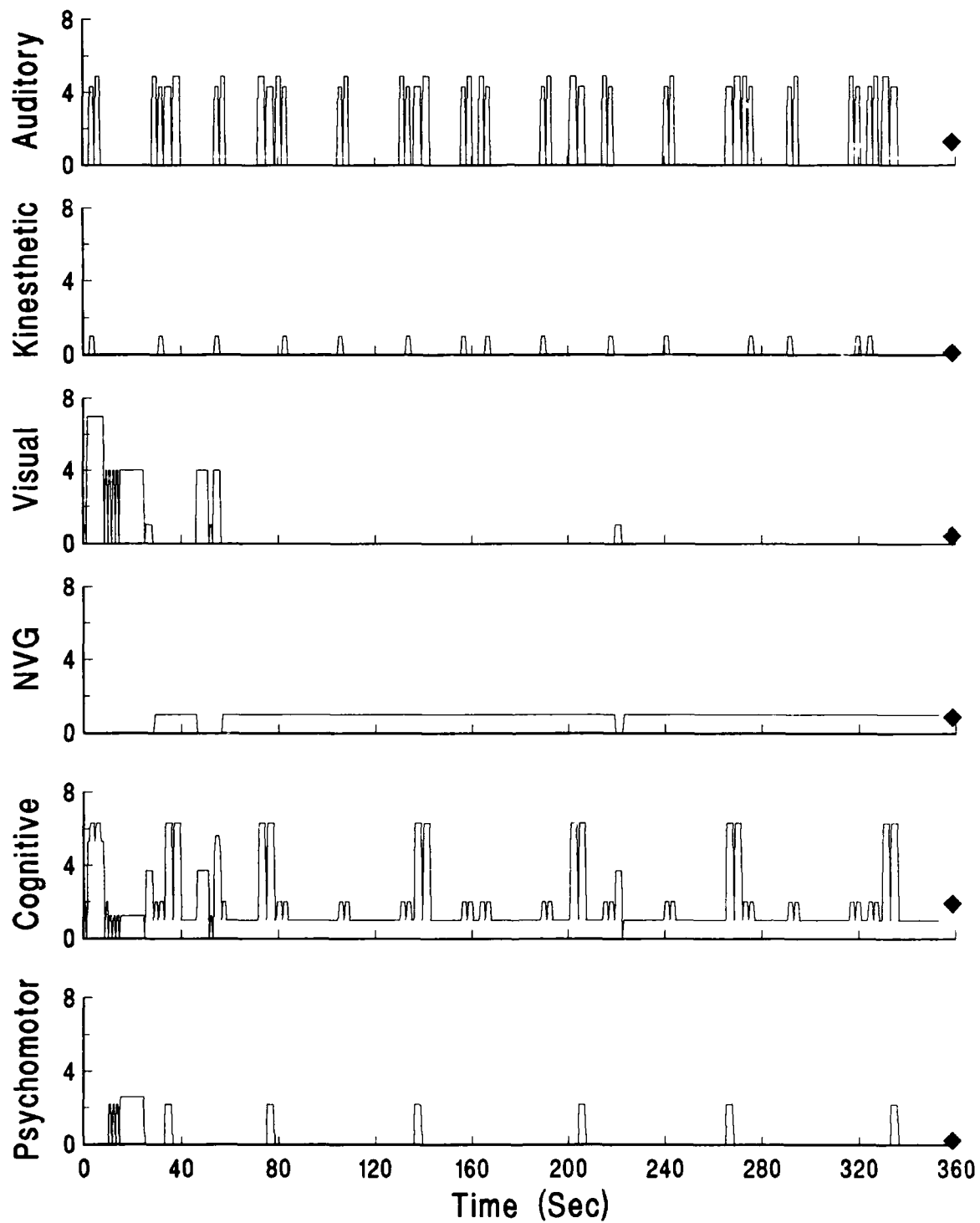
Segment 24: NOE Flight (Mission Change) [NVG]
Copilot - UH-60A



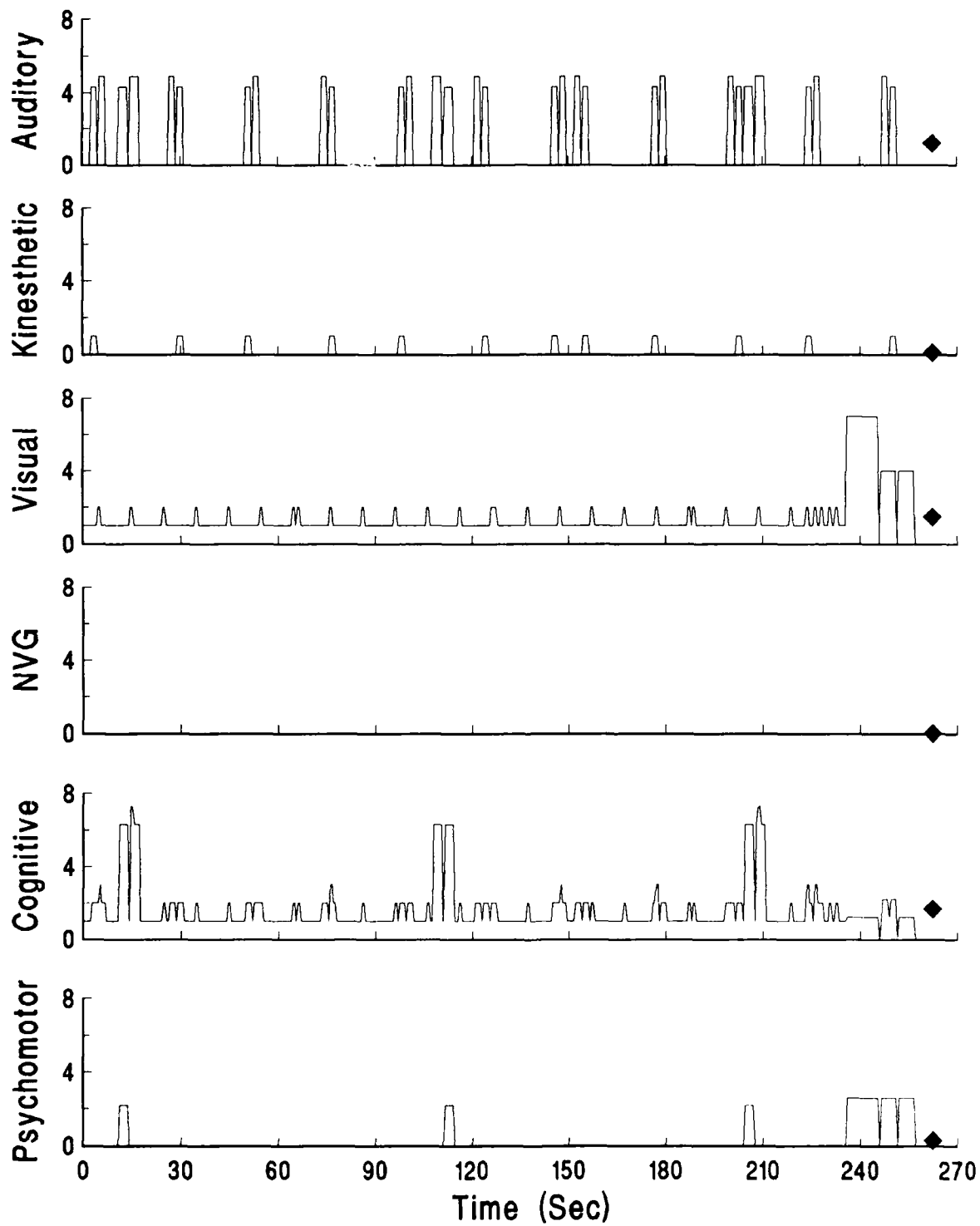
Segment 25: Approach (LZ)
Copilot - UH-60A



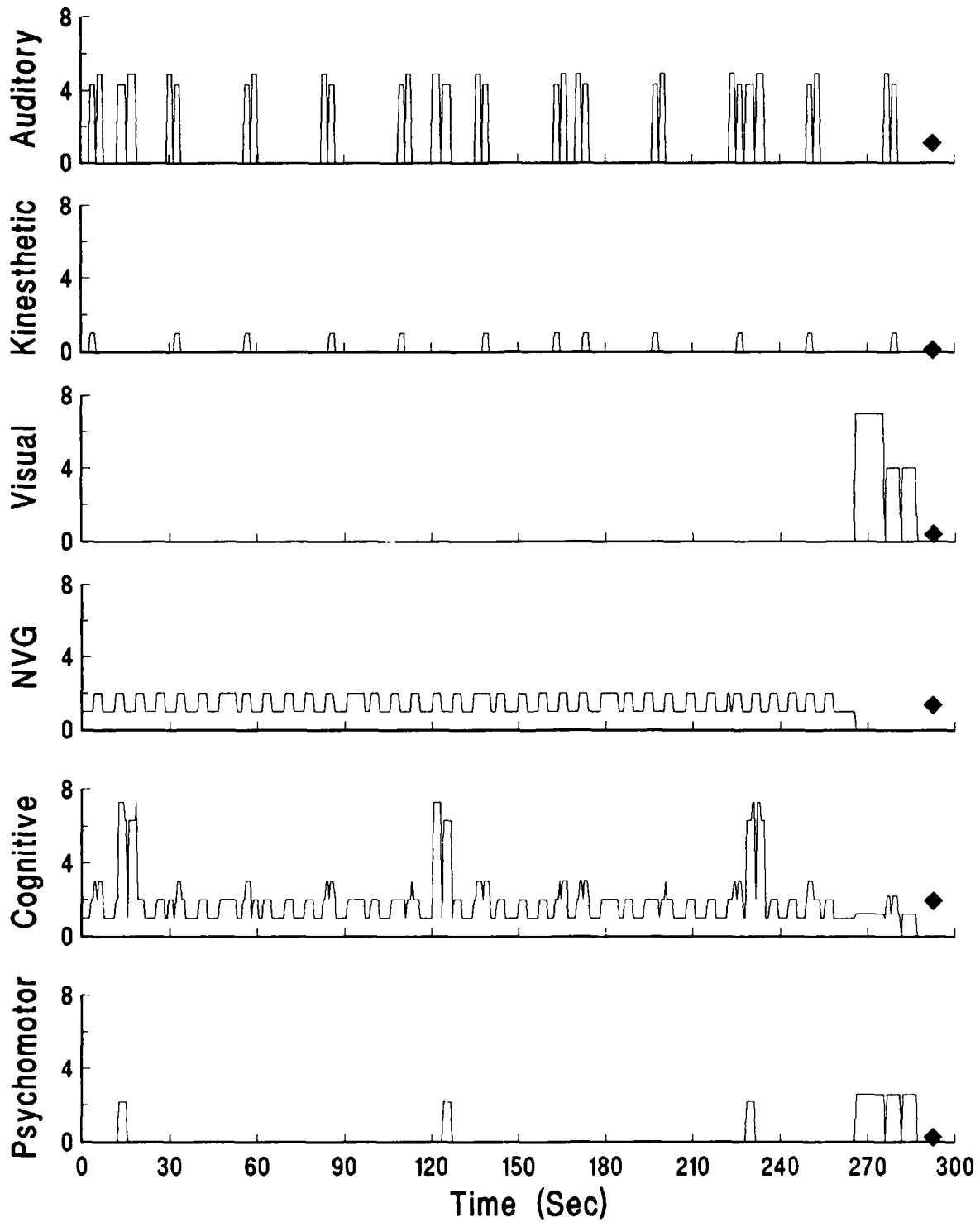
Segment 26: Approach (LZ) [NVG]
Copilot - UH-60A



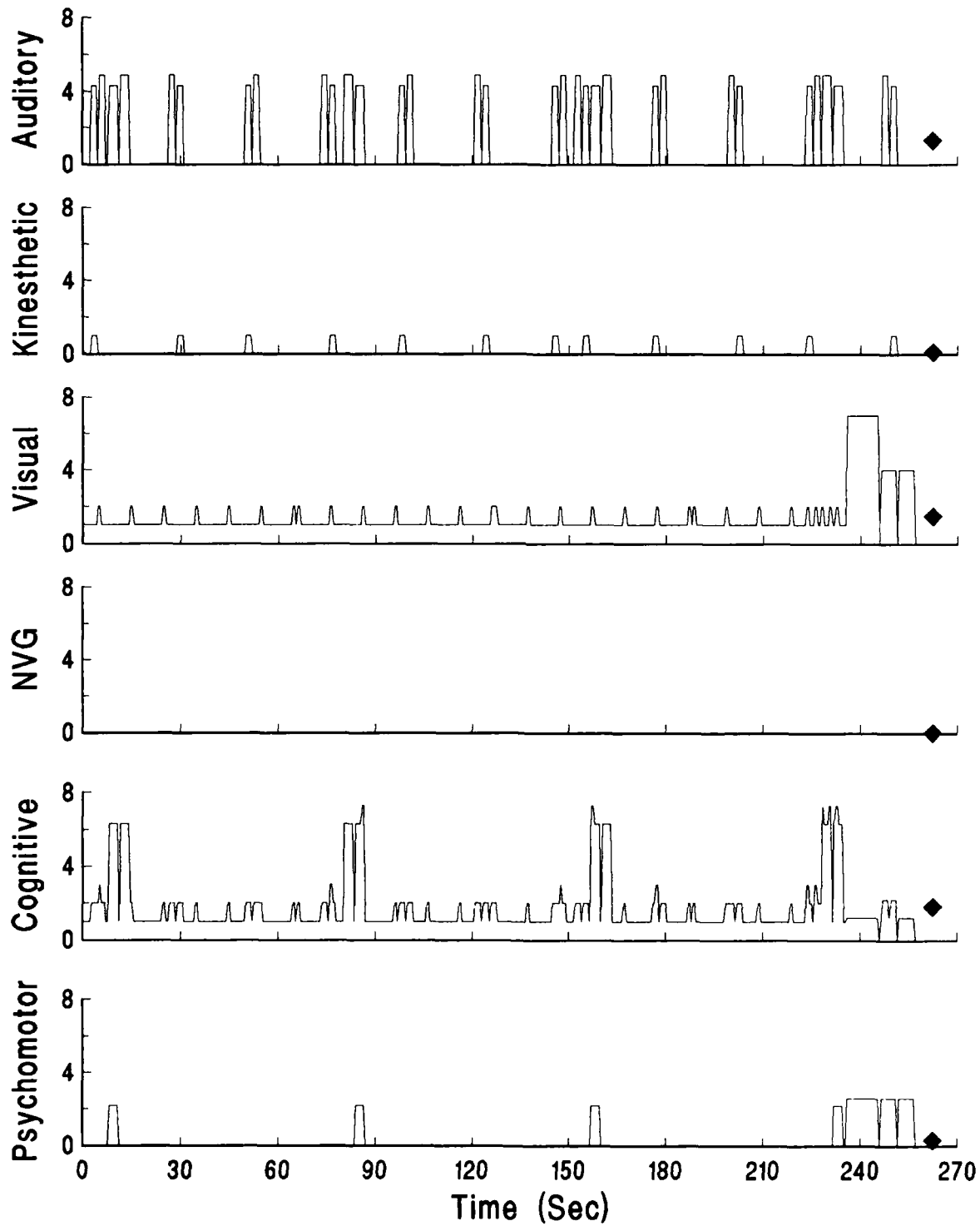
Segment 27: Landing (LZ, Internal Load)
Copilot - UH-60A



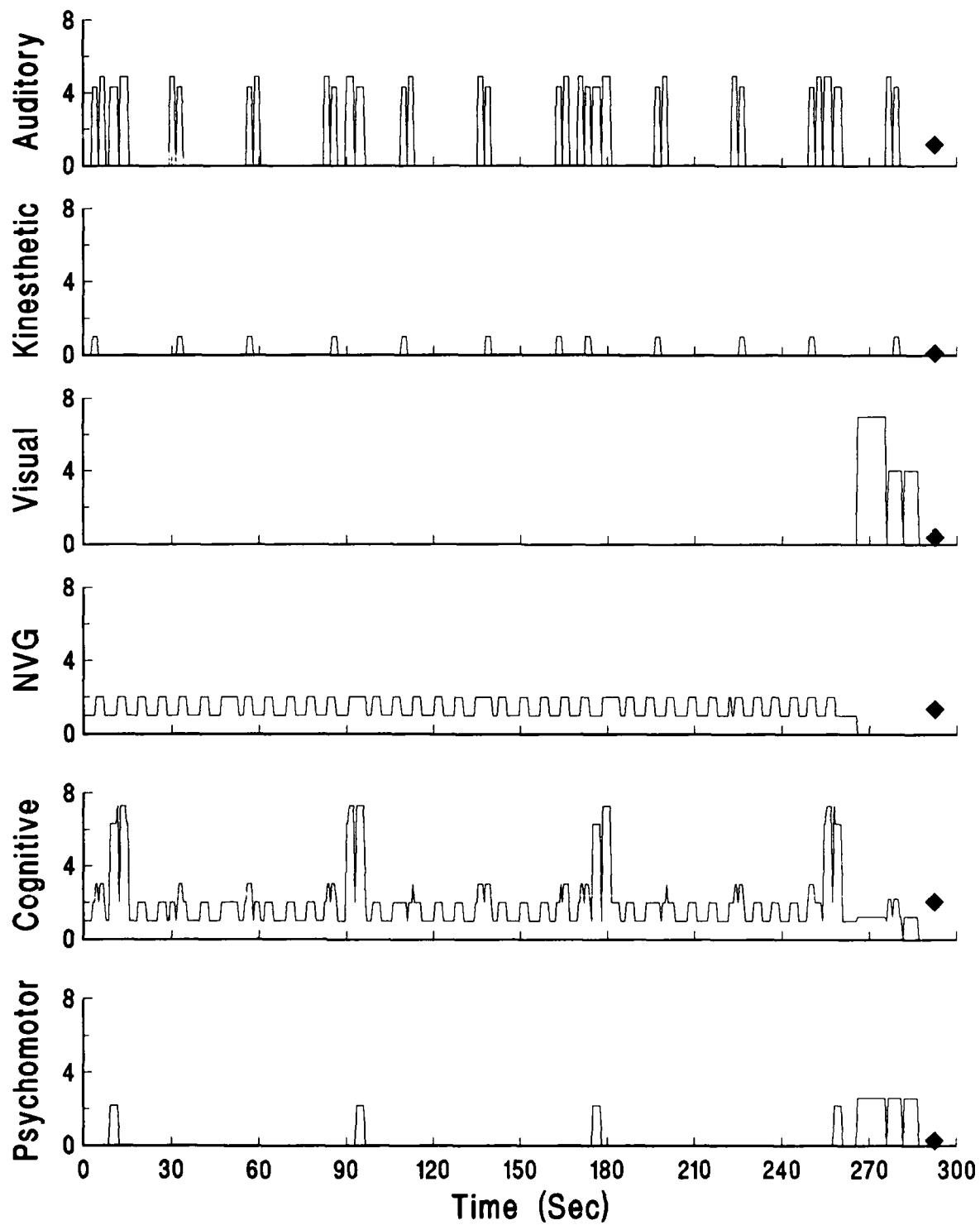
Segment 28: Landing (LZ, Internal Load) [NVG]
Copilot - UH-60A



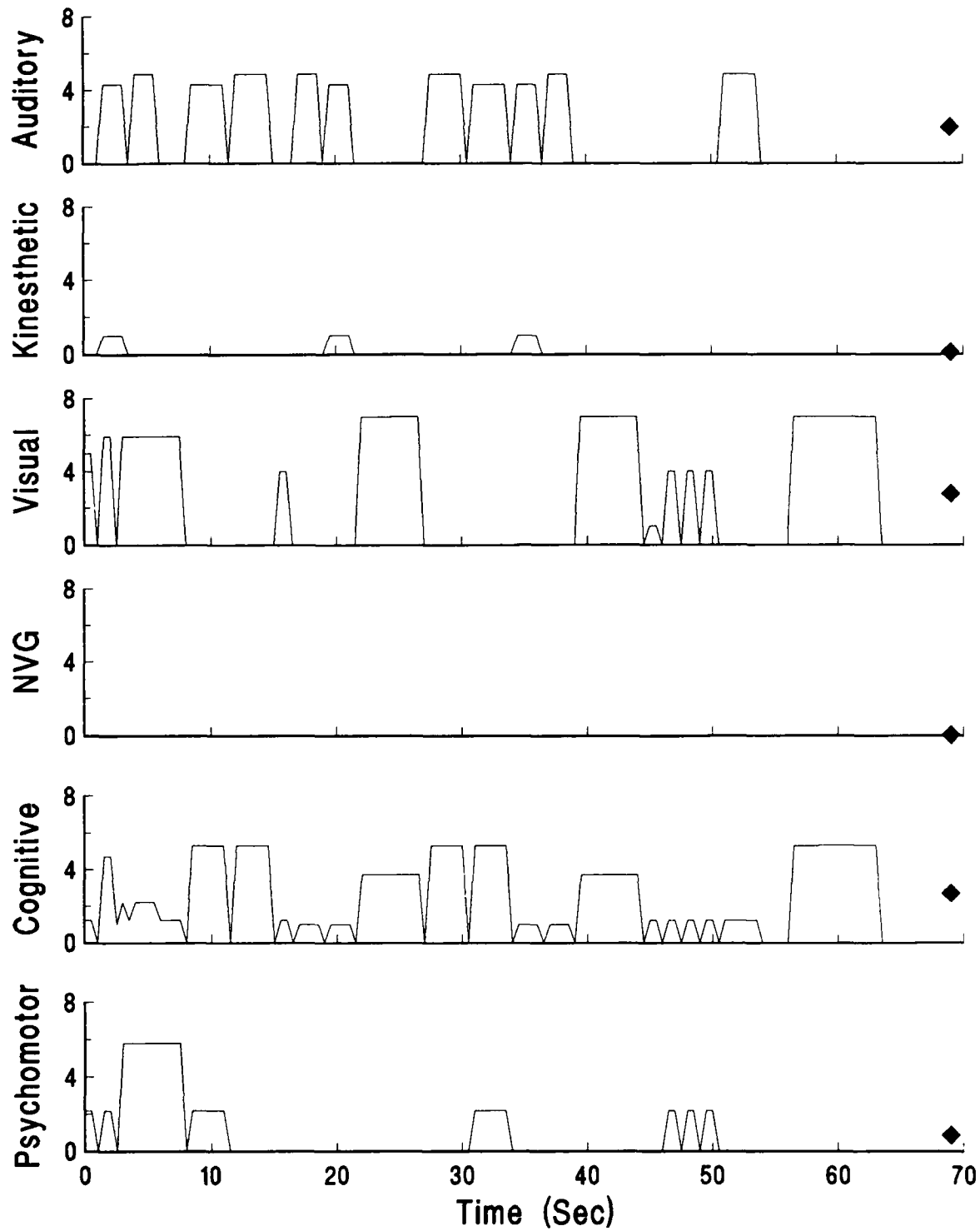
Segment 29: Landing (LZ, External Load)
Copilot - UH-60A



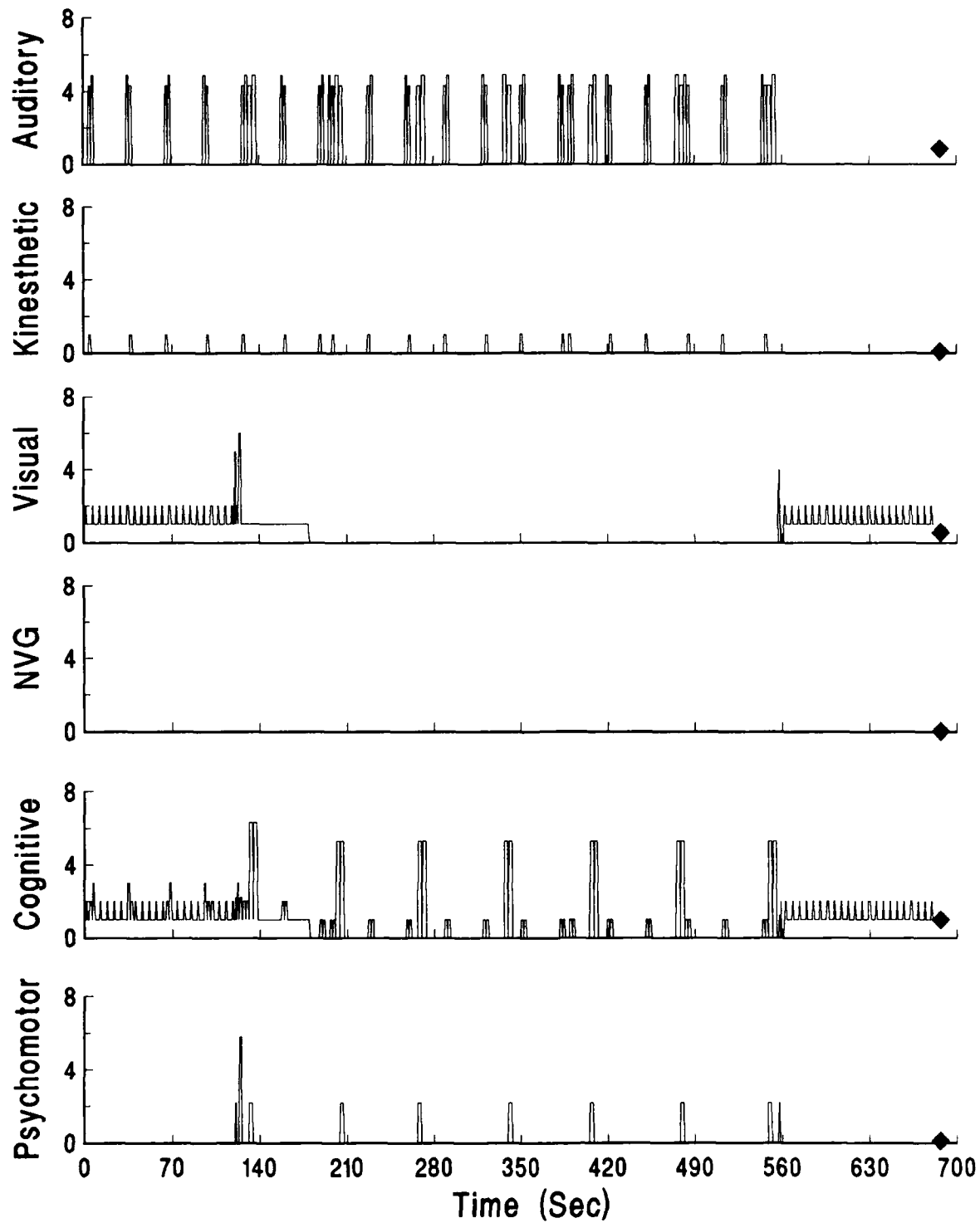
Segment 30: Landing (LZ, External Load) [NVG]
Copilot - UH-60A



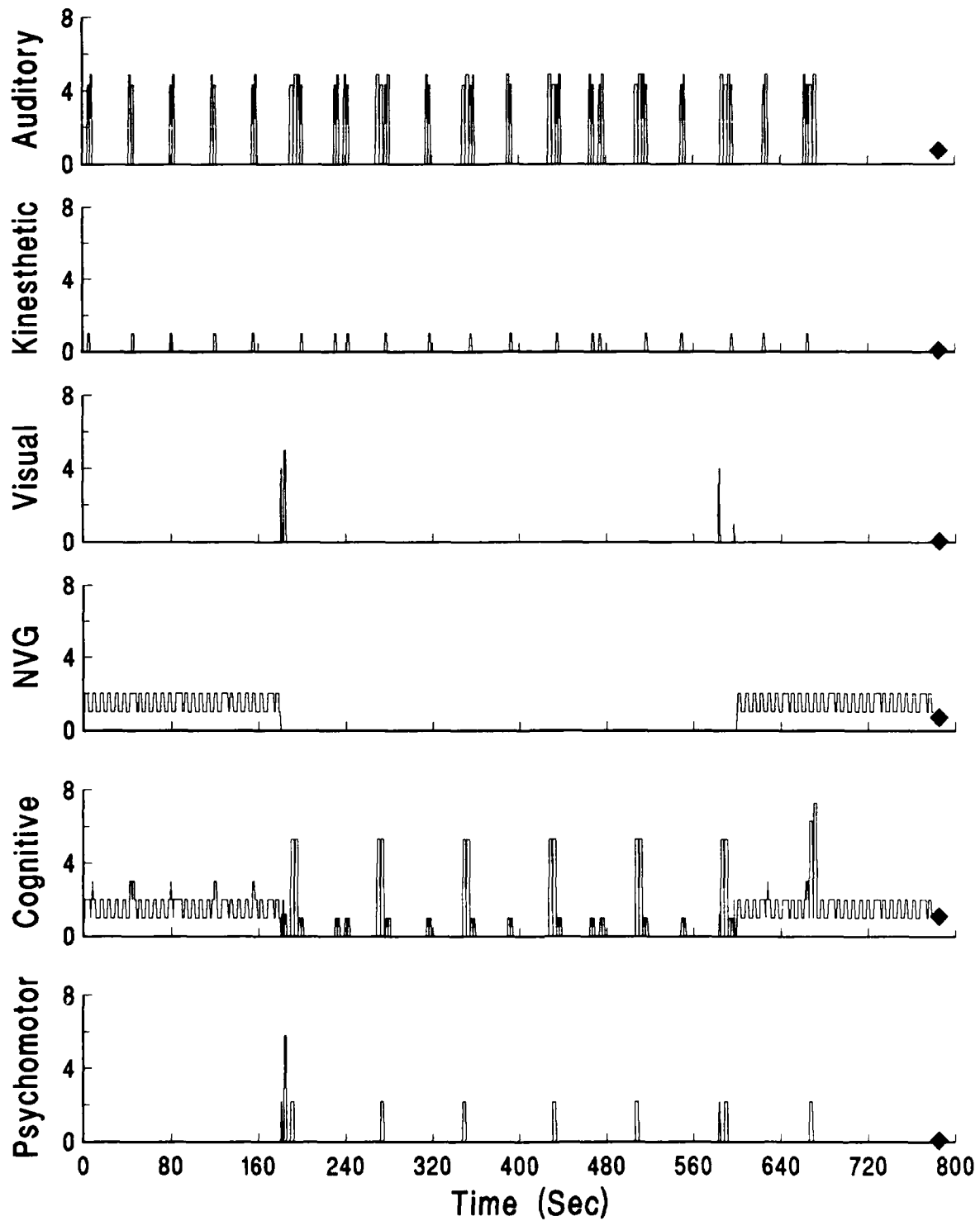
Segment 31: Before Takeoff (LZ)
Copilot - UH-60A



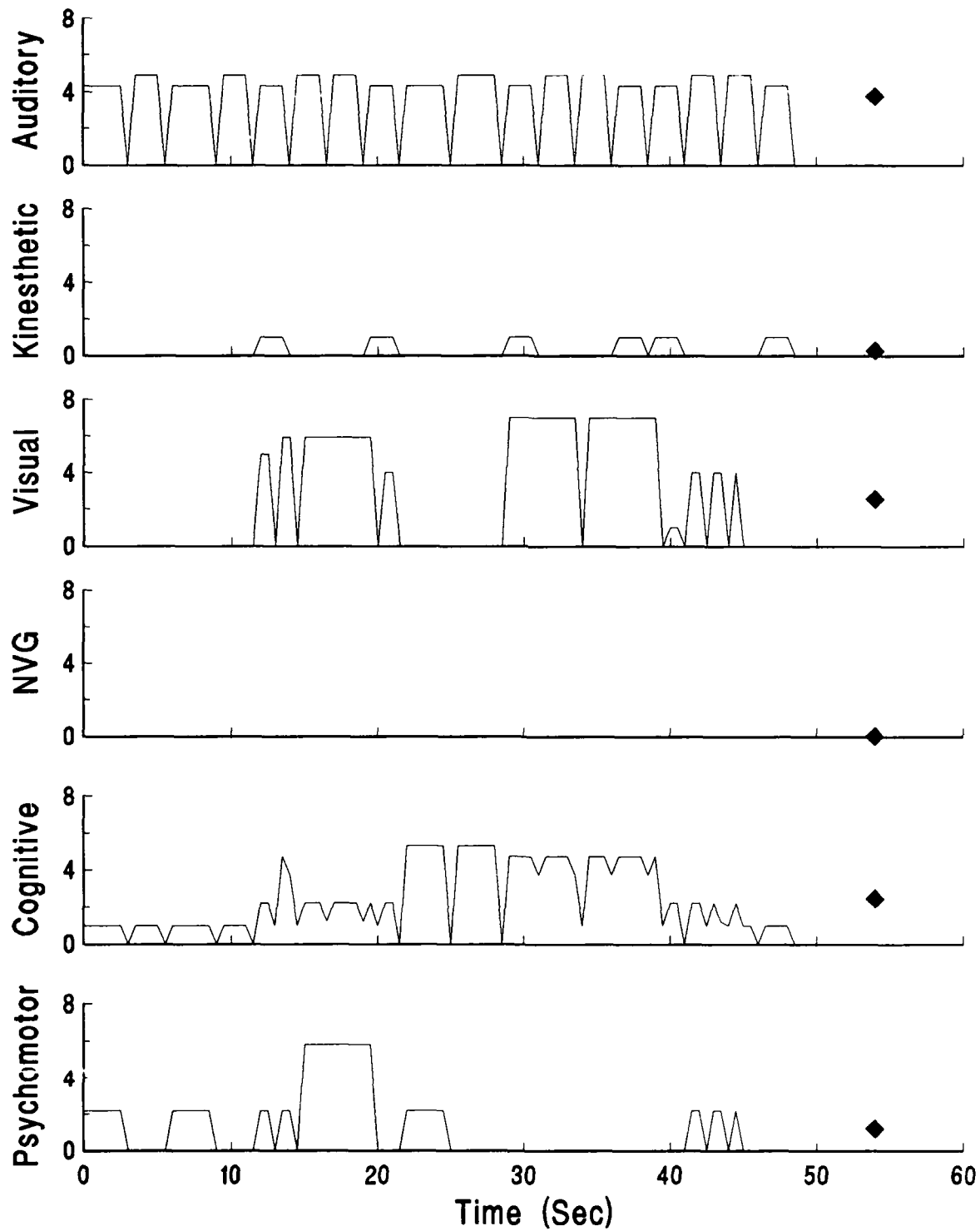
Segment 32: FARP Procedures Copilot - UH-60A



Segment 33: FARP Procedures [NVG]
Copilot - UH-60A



Segment 34: Before Takeoff (FARP)
Copilot - UH-60A



A P P E N D I X C

SUMMARY OF MH-60K MISSION PHASES AND SEGMENTS

The MH-60K mission scenario was divided into 5 unique mission phases. Subsequently, the 5 mission phases were divided into segments. This appendix lists the 5 phases and the 15 unique mission segments that were derived during the MH-60K mission analysis.

Phase 1: Departure (Base)

Segment 01: Configure Systems for Mission

02: Before Takeoff (Base Internal Load)

03: Takeoff [ANVIS]

Phase 2: Enroute (Base-Rendezvous)

Segment 04: Enroute Flight

05: Contour Flight (No Update) [ANVIS]

06: Contour Flight (Update) [ANVIS]

07: Rendezvous [ANVIS]

Phase 3: Enroute (Rendezvous-LZ)

Segment 08: NOE Flight [ANVIS]

09: NOE Flight [ANVIS/ASE]

10: Approach (LZ) [ANVIS]

11: Landing (LZ Internal Load) [ANVIS]

Phase 4: Enroute (LZ-Rendezvous)

Segment 12: Before Takeoff (LZ)

03: Takeoff [ANVIS]

13: NOE Flight (Route Change) [ANVIS]

07: Rendezvous [ANVIS]

Phase 5: Enroute (Rendezvous-Base)

Segment 06: Contour Flight (Update) [ANVIS]

14: Approach [ANVIS]

15: Landing [ANVIS]

A P P E N D I X D

ALPHABETICAL LIST OF MH-60K UNIQUE FUNCTIONS

Each mission segment listed in Appendix C was divided into functions during the MH-60K mission analysis. Seventy-one unique functions were identified. Subsequently, the functions were ordered in an alphabetical list and a number (1 - 71) was assigned corresponding to the ordinal position within the list. This appendix is an alphabetical list of the functions and the numerical identifiers for the functions.

NUMBER	FUNCTION
<hr/>	
01	Adjust Approach Parameters [NVG]
02	Adjust Climb Parameters [NVG]
03	Adjust Flight Parameters [NVG]
04	Adjust Level of Flight Parameters [NVG]
05	Adjust Map Display (Copilot)
06	Adjust Map Display (Pilot)
07	Align Navigation Systems
08	Boresight FLIR
09	Check Approach Parameters
10	Check Avionics System
11	Check Climb Parameters
12	Check Flight Instruments (Auto)
13	Check Flight Parameters
14	Check Level of Flight Parameters
15	Check Map Display System (Copilot)
16	Check Map Display System (Pilot)
17	Configure Flight Director
18	Configure Navigation Radios
19	Depart Rendezvous [NVG]
20	Engage Level Flight (Auto)
21	Establish Approach [NVG]
22	Establish Climb [NVG]
23	Establish Hover [NVG]
24	Establish Level of Flight [NVG]
25	Land Aircraft [NVG]
26	Load Aircraft (Internal)
27	Load Mission Plan
28	Mission Change
29	Monitor Audio

NUMBER	FUNCTION
30	Monitor External Visual Field (Copilot) [NVG]
31	Monitor External Visual Field (Pilot) [NVG]
32	Monitor Flight Controls
33	Monitor FLIR Image (Copilot)
34	Monitor FLIR Image (Pilot)
35	Monitor RADAR Image (Copilot)
36	Monitor RADAR Image (Pilot)
37	Monitor Threat (Copilot)
38	Monitor Threat (Pilot)
39	Perform Aerial Refueling [NVG]
40	Perform After Landing Check
41	Perform Before Hover Check
42	Perform Before Landing Check
43	Perform Before Landing Check (LZ)
44	Perform Before Takeoff Check
45	Perform Before Takeoff Check (LZ)
46	Perform Before Taxi Check
47	Perform Cockpit Communication (Copilot) (Coordination)
48	Perform Cockpit Communication (Copilot) (Normal)
49	Perform Cockpit Communication (Pilot) (Coordination)
50	Perform Cockpit Communication (Pilot) (Normal)
51	Perform External Communication (ATHS)
52	Perform External Communication (Frequency Change)
53	Perform External Communication (Receive Coordination)
54	Perform External Communication (Transmit Code)
55	Perform Hover Check [NVG]
56	Perform Hover [NVG]

NUMBER	FUNCTION
57	Perform IFF Procedures
58	Perform Navigation [NVG]
59	Perform Navigation (RADAR)
60	Perform Rendezvous Check
61	Perform Rendezvous [NVG]
62	Perform Taxi [NVG]
63	Perform Taxiing Check
64	Program Transponder
65	Respond to Threat [NVG]
66	Set Up Communication Radios
67	Unload Aircraft (Internal)
68	Update Navigation (FLIR)
69	Update Navigation (LZ)
70	Update Navigation (Mission Change)
71	Update Navigation (NRP)

A P P E N D I X E

OUTLINE OF MH-60K MISSION SEGMENTS AND FUNCTIONS

A mission scenario was developed as the first step in the MH-60K mission/task/workload analysis. Subsequently, the MH-60K mission scenario was divided into 5 unique mission phases. The 5 mission phases subsequently were divided into segments and functions. This appendix is a list of all the segments and functions as they occur in each of the 5 mission phases throughout the entire mission scenario.

PHASE 1: DEPARTURE (BASE)

Segment 01: Configure Systems for Mission

Function 27: Load Mission Plan
07: Align Navigation Systems
10: Check Avionics System
16: Check Map Display System (Pilot)
15: Check Map Display System (Copilot)
17: Configure Flight Director
18: Configure Navigation Radios
66: Set up Communication Radios
48: Perform Cockpit Communication (Copilot) (Normal)
50: Perform Cockpit Communication (Pilot) (Normal)
47: Perform Cockpit Communication (Copilot) (Coordination)
49: Perform Cockpit Communication (Pilot) (Coordination)
64: Program Transponder
08: Boresight FLIR
32: Monitor Flight Controls
31: Monitor External Visual Field (Pilot) [NVG]

Segment 02: Before Takeoff (Base/Internal Load)

Function 32: Monitor Flight Controls
46: Perform Before Taxi Check
48: Perform Cockpit Communication (Copilot) (Normal)
50: Perform Cockpit Communication (Pilot) (Normal)
47: Perform Cockpit Communication (Copilot) (Coordination)
49: Perform Cockpit Communication (Pilot) (Coordination)
62: Perform Taxi [NVG]
63: Perform Taxiing Check
41: Perform Before Hover Check
56: Perform Hover [NVG]
55: Perform Hover Check [NVG]
25: Land Aircraft [NVG]
26: Load Aircraft (Internal)
44: Perform Before Takeoff Check
53: Perform External Communication (Receive Coordination)
31: Monitor External Visual Field (Pilot) [NVG]

Segment 03: Takeoff [ANVIS]

Function 23: Establish Hover [NVG]
31: Monitor External Visual Field (Pilot) [NVG]
30: Monitor External Visual Field (Copilot) [NVG]
56: Perform Hover [NVG]
22: Establish Climb [NVG]
02: Adjust Climb Parameters [NVG]
11: Check Climb Parameters
24: Establish Level of Flight [NVG]
04: Adjust Level of Flight Parameters [NVG]
14: Check Level of Flight Parameters
47: Perform Cockpit Communication (Copilot) (Coordination)
49: Perform Cockpit Communication (Pilot) (Coordination)
38: Monitor Threat (Pilot)
37: Monitor Threat (Copilot)
48: Perform Cockpit Communication (Copilot) (Normal)
50: Perform Cockpit Communication (Pilot) (Normal)

PHASE 2: ENROUTE (BASE-RENDEZVOUS)

Segment 04: Enroute Flight

Function 20: Engage Level Flight (Auto)
32: Monitor Flight Controls
31: Monitor External Visual Field (Pilot) [NVG]
05: Adjust Map Display (Copilot)
06: Adjust Map Display (Pilot)
12: Check Flight Instruments (Auto)
58: Perform Navigation [NVG]
59: Perform Navigation (RADAR)
38: Monitor Threat (Pilot)
37: Monitor Threat (Copilot)
34: Monitor FLIR Image (Pilot)
33: Monitor FLIR Image (Copilot)
48: Perform Cockpit Communication (Copilot) (Normal)
50: Perform Cockpit Communication (Pilot) (Normal)
47: Perform Cockpit Communication (Copilot) (Coordination)
49: Perform Cockpit Communication (Pilot) (Coordination)
54: Perform External Communication (Transmit Code)

Segment 05: Contour Flight (No Update) [ANVIS]

Function 03: Adjust Flight Parameters [NVG]
13: Check Flight Parameters
05: Adjust Map Display (Copilot)
06: Adjust Map Display (Pilot)
58: Perform Navigation [NVG]
59: Perform Navigation (RADAR)
38: Monitor Threat (Pilot)
37: Monitor Threat (Copilot)
34: Monitor FLIR Image (Pilot)
33: Monitor FLIR Image (Copilot)
48: Perform Cockpit Communication (Copilot) (Normal)
50: Perform Cockpit Communication (Pilot) (Normal)
47: Perform Cockpit Communication (Copilot) (Coordination)
49: Perform Cockpit Communication (Pilot) (Coordination)
54: Perform External Communication (Transmit Code)
31: Monitor External Visual Field (Pilot) [NVG]

Segment 06: Contour Flight (Update) [ANVIS]

Function 03: Adjust Flight Parameters [NVG]
13: Check Flight Parameters
05: Adjust Map Display (Copilot)
58: Perform Navigation [NVG]
38: Monitor Threat (Pilot)
37: Monitor Threat (Copilot)
36: Monitor RADAR Image (Pilot)
34: Monitor FLIR Image (Pilot)
68: Update Navigation (FLIR)
71: Update Navigation (NRP)
48: Perform Cockpit Communication (Copilot) (Normal)
50: Perform Cockpit Communication (Pilot) (Normal)
47: Perform Cockpit Communication (Copilot) (Coordination)
49: Perform Cockpit Communication (Pilot) (Coordination)
54: Perform External Communication (Transmit Code)
31: Monitor External Visual Field (Pilot) [NVG]

Segment 07: Rendezvous [ANVIS]

Function 38: Monitor Threat (Pilot)
37: Monitor Threat (Copilot)
52: Perform External Communication (Frequency Change)
60: Perform Rendezvous Check
57: Perform IFF Procedures
61: Perform Rendezvous [NVG]
39: Perform Aerial Refueling [NVG]
19: Depart Rendezvous [NVG]
48: Perform Cockpit Communication (Copilot) (Normal)
50: Perform Cockpit Communication (Pilot) (Normal)
47: Perform Cockpit Communication (Copilot) (Coordination)
49: Perform Cockpit Communication (Pilot) (Coordination)
34: Monitor FLIR Image (Pilot)
33: Monitor FLIR Image (Copilot)
04: Adjust Level of Flight Parameters [NVG]
13: Check Flight Parameters
31: Monitor External Visual Field (Pilot) [NVG]

PHASE 3: ENROUTE (RENDEZVOUS-LZ)

Segment 08: NOE Flight [ANVIS]

Function 03: Adjust Flight Parameters [NVG]
13: Check Flight Parameters
05: Adjust Map Display (Copilot)
58: Perform Navigation [NVG]
59: Perform Navigation (RADAR)
38: Monitor Threat (Pilot)
37: Monitor Threat (Copilot)
48: Perform Cockpit Communication (Copilot) (Normal)
50: Perform Cockpit Communication (Pilot) (Normal)
47: Perform Cockpit Communication (Copilot) (Coordination)
49: Perform Cockpit Communication (Pilot) (Coordination)
31: Monitor External Visual Field (Pilot) [NVG]

Segment 09: NOE Flight [ANVIS/ASE]

Function 03: Adjust Flight Parameters [NVG]
13: Check Flight Parameters
05: Adjust Map Display (Copilot)
58: Perform Navigation [NVG]
38: Monitor Threat (Pilot)
37: Monitor Threat (Copilot)
35: Monitor RADAR Image (Copilot)
65: Respond to Threat [NVG]
68: Update Navigation (FLIR)
51: Perform External Communication (ATHS)
48: Perform Cockpit Communication (Copilot) (Normal)
50: Perform Cockpit Communication (Pilot) (Normal)
47: Perform Cockpit Communication (Copilot) (Coordination)
49: Perform Cockpit Communication (Pilot) (Coordination)
31: Monitor External Visual Field (Pilot) [NVG]

Segment 10: Approach (LZ) [ANVIS]

Function 43: Perform Before Landing Check (LZ)
21: Establish Approach [NVG]
01: Adjust Approach Parameters [NVG]
09: Check Approach Parameters
48: Perform Cockpit Communication (Copilot) (Normal)
50: Perform Cockpit Communication (Pilot) (Normal)
47: Perform Cockpit Communication (Copilot) (Coordination)
49: Perform Cockpit Communication (Pilot) (Coordination)
38: Monitor Threat (Pilot)
37: Monitor Threat (Copilot)
31: Monitor External Visual Field (Pilot) [NVG]
30: Monitor External Visual Field (Copilot) [NVG]

Segment 11: Landing (LZ Internal Load) [ANVIS]

Function 23: Establish Hover [NVG]
56: Perform Hover [NVG]
25: Land Aircraft [NVG]
67: Unload Aircraft (Internal)
48: Perform Cockpit Communication (Copilot) (Normal)
50: Perform Cockpit Communication (Pilot) (Normal)
47: Perform Cockpit Communication (Copilot) (Coordination)
49: Perform Cockpit Communication (Pilot) (Coordination)
31: Monitor External Visual Field (Pilot) [NVG]
30: Monitor External Visual Field (Copilot) [NVG]
32: Monitor Flight Controls

PHASE 4: ENROUTE (LZ-RENDEZVOUS)

Segment 12: Before Takeoff (LZ)

48: Perform Cockpit Communication (Copilot) (Normal)
50: Perform Cockpit Communication (Pilot) (Normal)
47: Perform Cockpit Communication (Copilot) (Coordination)
49: Perform Cockpit Communication (Pilot) (Coordination)
45: Perform Before Takeoff Check (LZ)
69: Update Navigation (LZ)
31: Monitor External Visual Field (Pilot) [NVG]
32: Monitor Flight Controls

Segment 03: Takeoff [ANVIS]

Function 23: Establish Hover [NVG]
31: Monitor External Visual Field (Pilot) [NVG]
30: Monitor External Visual Field (Copilot) [NVG]
56: Perform Hover [NVG]
22: Establish Climb [NVG]
02: Adjust Climb Parameters [NVG]
11: Check Climb Parameters
24: Establish Level of Flight [NVG]
04: Adjust Level of Flight Parameters [NVG]
14: Check Level of Flight Parameters
47: Perform Cockpit Communication (Copilot) (Coordination)
49: Perform Cockpit Communication (Pilot) (Coordination)
38: Monitor Threat (Pilot)
37: Monitor Threat (Copilot)
48: Perform Cockpit Communication (Copilot) (Normal)
50: Perform Cockpit Communication (Pilot) (Normal)

Segment 13: NOE Flight (Route Change) [ANVIS]

Function 03: Adjust Flight Parameters [NVG]
13: Check Flight Parameters
05: Adjust Map Display (Copilot)
58: Perform Navigation [NVG]
38: Monitor Threat (Pilot)
37: Monitor Threat (Copilot)
28: Mission Change
70: Update Navigation (Mission Change)
48: Perform Cockpit Communication (Copilot) (Normal)
50: Perform Cockpit Communication (Pilot) (Normal)
47: Perform Cockpit Communication (Copilot) (Coordination)
49: Perform Cockpit Communication (Pilot) (Coordination)
31: Monitor External Visual Field (Pilot) [NVG]

Segment 07: Rendezvous [ANVIS]

Function 38: Monitor Threat (Pilot)
37: Monitor Threat (Copilot)
52: Perform External Communication (Frequency Change)
60: Perform Rendezvous Check
57: Perform IFF Procedures
61: Perform Rendezvous [NVG]
39: Perform Aerial Refueling [NVG]
19: Depart Rendezvous [NVG]
48: Perform Cockpit Communication (Copilot) (Normal)
50: Perform Cockpit Communication (Pilot) (Normal)
47: Perform Cockpit Communication (Copilot) (Coordination)
49: Perform Cockpit Communication (Pilot) (Coordination)
34: Monitor FLIR Image (Pilot)
33: Monitor FLIR Image (Copilot)
04: Adjust Level of Flight Parameters [NVG]
13: Check Flight Parameters
31: Monitor External Visual Field (Pilot) [NVG]

5. ENROUTE (RENDEZVOUS-BASE)

Segment 06: Contour Flight (Update) [ANVIS]

Function 03: Adjust Flight Parameters [NVG]
13: Check Flight Parameters
05: Adjust Map Display (Copilot)
58: Perform Navigation [NVG]
38: Monitor Threat (Pilot)
37: Monitor Threat (Copilot)
36: Monitor RADAR Image (Pilot)
34: Monitor FLIR Image (Pilot)
68: Update Navigation (FLIR)
71: Update Navigation (NRP)
48: Perform Cockpit Communication (Copilot) (Normal)
50: Perform Cockpit Communication (Pilot) (Normal)
47: Perform Cockpit Communication (Copilot) (Coordination)
49: Perform Cockpit Communication (Pilot) (Coordination)
54: Perform External Communication (Transmit Code)
31: Monitor External Visual Field (Pilot) [NVG]

Segment 14: Approach [ANVIS]

Function 52: Perform External Communication (Frequency Change)
42: Perform Before Landing Check
21: Establish Approach [NVG]
01: Adjust Approach Parameters [NVG]
09: Check Approach Parameters
30: Monitor External Visual Field (Copilot) [NVG]
33: Monitor FLIR Image (Copilot)
48: Perform Cockpit Communication (Copilot) (Normal)
50: Perform Cockpit Communication (Pilot) (Normal)
47: Perform Cockpit Communication (Copilot) (Coordination)
49: Perform Cockpit Communication (Pilot) (Coordination)
54: Perform External Communication (Transmit Code)
38: Monitor Threat (Pilot)
37: Monitor Threat (Copilot)
31: Monitor External Visual Field (Pilot) [NVG]

Segment 15: Landing [ANVIS]

Function 23: Establish Hover [NVG]
56: Perform Hover [NVG]
30: Monitor External Visual Field (Copilot) [NVG]
25: Land Aircraft [NVG]
40: Perform After Landing Check
53: Perform External Communication (Receive Coordination)
48: Perform Cockpit Communication (Copilot) (Normal)
50: Perform Cockpit Communication (Pilot) (Normal)
47: Perform Cockpit Communication (Copilot) (Coordination)
49: Perform Cockpit Communication (Pilot) (Coordination)
31: Monitor External Visual Field (Pilot) [NVG]
32: Monitor Flight Controls

A P P E N D I X F

ALPHABETICAL LIST OF MH-60K UNIQUE TASKS

During the MH-60K mission/task/workload analysis, each of the 71 functions was divided into tasks. A task defines an observable crew activity that is essential to the successful performance of the selected function. For the 71 functions, a total of 230 unique tasks were identified. This appendix is an alphabetical list of the 230 tasks with assigned task numbers.

TASK #	VERB	OBJECT
001	Press	ACC Key
002	Receive	Acknowledgment
003	Transmit	Acknowledgment
004	Press	ADF Key
005	Press	ADS SYM Key
006	Press	AHRS NAV Key
007	Press	AHRS NORM Key
008	Check	Airspeed
009	Enter	Airspeed
010	Check	Airspeed (Inflight)
011	Control	Airspeed [NVG]
012	Change	Airspeed Quickly [NVG]
013	Check	Altitude
014	Check	Altitude (Inflight)
015	Adjust	Altitude [NVG]
016	Control	Altitude [NVG]
017	Change	Altitude Sharply [NVG]
018	Press	A/S SEL Key
019	Press	ASE Key
020	Press	ATHS MENU Key
021	Check	Attitude
022	Adjust	Attitude [NVG]
023	Control	Attitude [NVG]
024	Monitor	Audio
025	Press	BALT SEL Key
026	Enter	BARO Altitude
027	Press	BCN OPER Key
028	Press	BCN STBY Key
029	Check	Bit Light
030	Press	BORE Key
031	Check	Brakes (Copilot)
032	Check	Brakes (Pilot)
033	Press	CALC Key
034	Press	CALT Key
035	Check	CAUTION/WARNING/Advisory Display
036	Enter	CDU Data
037	Press	CENTER Key
038	Press	CHAN Key
039	Press	CHECK LISTS Key
040	Press	COMM Key
041	Receive	Communication (Copilot)
042	Receive	Communication (Copilot) (Normal)
043	Transmit	Communication (Copilot)
044	Transmit	Communication (Copilot) (Normal)
045	Receive	Communication (Crewchief)

TASK #	VERB	OBJECT
046	Transmit	Communication (Crewchief)
047	Receive	Communication (Pilot)
048	Receive	Communication (Pilot) (Normal)
049	Transmit	Communication (Pilot)
050	Transmit	Communication (Pilot) (Normal)
051	Check	Course Display
052	Check	Crew
053	Press	CRS Key
054	Press	CTR Key
055	Press	DCLT Key
056	Press	DECENTER Key
057	Check	Direction Display
058	Press	DISP MSGS Key
059	Press	DISPLAY LEG Key
060	Control	Drift [NVG]
061	Insert	DTM Cartridge
062	Check	Engine Display
063	Check	Engine Indications (Hover)
064	Press	Enter Key
065	Check	EQP STAT Key
066	Press	EQP STAT Key
067	Check	External Scene [NVG]
068	Press	F/D Key
069	Monitor	Flight Controls
070	Check	Flight Controls (Hover) [NVG]
071	Verify	Flight Path (FLIR)
072	Verify	Flight Path [NVG]
073	Verify	Flight Path (RADAR)
074	Check	Flight Symbology (Hover)
075	Press	FLIR CTRL Key
076	Check	FLIR Image
077	Press	FLIR Key
078	Press	FLIR ON Key
079	Press	FLY OVER STR Key
080	Press	FLY OVER UPD Key
081	Control	Forward Motion (Taxi) [NVG]
082	Press	FOV Key
083	Press	FOV NAR Key
084	Set	FOV Scale Switch
085	Press	FPLN Key
086	Press	FPLN LOAD Key
087	Press	FPLN ON Key
088	Press	FPV Key
089	Check	Fuel Indicator
090	Check	Fuel Summary

TASK #	VERB	OBJECT
091	Press	FUEL/POWER Key
092	Press	GET LIST Key
093	Press	GM/TF Key
094	Press	GPS DOP Key
095	Press	GPS INIT Key
096	Perform	Hard Turns [NVG]
097	Press	HDG SEL Key
098	Check	Heading
099	Enter	Heading
100	Check	Heading (Inflight)
101	Adjust	Heading [NVG]
102	Control	Heading [NVG]
103	Control	Heading (Taxi) [NVG]
104	Press	HF COMM Key
105	Press	HF LIST Key
106	Perform	HIT Check
107	Press	HSD Key
108	Press	HVR SYM Key
109	Check	IFF Code
110	Press	IFF Key
111	Press	IFF MODE Key
112	Press	IFF NORM/STBY Key
113	Press	IFF STBY Key
114	Press	INIT Key
115	Press	INS NAV Key
116	Press	INST Key
117	Identify	Landmark (FLIR)
118	Identify	Landmark (Map)
119	Press	LEG ADD Key
120	Enter	Leg Data
121	Press	LEG MOD Key
122	Press	LEGS Key
123	Set	Lights
124	Check	Load Secure
125	Verify	Load Secure
126	Monitor	Loading
127	Press	LOOK AHD Key
128	Scan	Map Display
129	Check	Map Display Scale
130	Interpret	Map Features
131	Press	MAP Key
132	Check	MASTER Key
133	Press	MASTER Key
134	Enter	Message
135	Read	Message

TASK #	VERB	OBJECT
136	Receive	Message
137	Transmit	Message
138	Note	Message Alert
139	Receive	Message Alert
140	Transmit	Message (Brief)
141	Verify	Mission Loaded
142	Press	MISSN LOAD Key
143	Press	MODE 1 Key
144	Press	MODE 2 Key
145	Press	MODE 3A Key
146	Press	MODE C Key
147	Pull	Mode Trigger
148	Release	Mode Trigger
149	Press	NAV AIDS Key
150	Press	NAV INIT Key
151	Press	NAV Key
152	Enter	New NRP Number
153	Press	NEXT Key
154	Press	NORM Key
155	Verify	NRP
156	Enter	NRP Data
157	Enter	NRP Number
158	Check	Obstacle Clearance [NVG]
159	Maintain	Obstacle Clearance [NVG]
160	Press	OP RDY Key
161	Check	Park Brake
162	Release	Park Brake
163	Check	Park Brake Light
164	Press	POL Key
165	Perform	Power Check (Hover)
166	Adjust	Power [NVG]
167	Verify	Probe Hookup
168	Verify	Probe Unhooked
169	Press	PT Key
170	Check	Radar Image
171	Press	RADAR Key
172	Check	Radios
173	Check	Rate of Climb Indicator (Inflight)
174	Control	Rate of Climb [NVG]
175	Control	Rate of Descent [NVG]
176	Press	RDR Key
177	Set	Refuel Panel
178	Verify	Refueling Ceased
179	Press	RNG DOWN Key
180	Press	RNG Key

TASK #	VERB	OBJECT
181	Press	RNG UP Key
182	Check	Rotor RPM
183	Press	RTN Key
184	Press	SEC Key
185	Press	SEQ CHAN Key
186	Press	SEQ Key
187	Press	SEQ MSG Key
188	Press	SLEW Key
189	Press	SNSR UPD Key
190	Press	SQL Key
191		Standby
192	Check	Steering
193	Press	STR Key
194	Press	STR NRP Key
195	Press	SYST Key
196	Press	TA Key
197	Check	TACAN Channel
198	Check	Tailwheel Advisory Light
199	Set	TAILWHEEL Switch
200	Locate	Tanker [NVG]
201	Press	TCN A/AR Key
202	Press	TCN BRG Key
203	Press	TF Key
204	Detect	Threat
205	Enter	Threat Information
206	Perform	Touchdown [NVG]
207	Check	Trim Ball (Inflight)
208	Adjust	Trim [NVG]
209	Press	TUNE HF Key
210	Press	TUNE UHF 1 Key
211	Press	TUNE VHF 1 Key
212	Press	TUNE VHF 2 Key
213	Press	UHF 1 Key
214	Press	UHF COMM Key
215	Press	UHF LIST Key
216	Monitor	Unloading
217	Verify	Unloading Complete
218	Press	UPD Key
219	Slew	Update Cursor
220	Check	Vertical Situation Display
221	Press	VHF 1 Key
222	Press	VHF 2 Key
223	Press	VHF LIST Key
224	Press	VOR TAC Key
225	Press	VSD Key

TASK #	VERB	OBJECT
226	Press	WCA Key
227	Check	WCA Light
228	Press	WYPT Key
229	Press	XMIT MSG Key
230	Check	% TRQ Indication (Inflight)

A P P E N D I X G

MH-60K FUNCTION ANALYSIS WORKSHEETS

During the MH-60K mission/task/workload analysis, descriptive information was compiled for each of the 230 unique tasks. The descriptive information for each task was compiled on a Function Analysis Worksheet using a standardized format. This appendix contains the Function Analysis Worksheet for each of the 71 functions. The Function Analysis Worksheets provide the following information:

- function name,
- function number,
- total time of function,
- task identifiers with verb and object,
- crewmember(s) performing each task,
- task numbers,
- subsystems associated with each task,
- verbal descriptors of sensory components and workload ratings,
- verbal descriptors of cognitive components and workload ratings,
- verbal descriptors of psychomotor components and workload ratings,
- descriptions of switches if used to perform the tasks, and
- task durations.

FUNCTION 01 Adjust Approach Parameters [NVG]

TOTAL TIME (Approximate)

340 Seconds*

TASKS		TASK #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Control	Altitude [NVG]	P023	Flight Control (FC)	Feel Control Movements K-7	Make Conditioned Association (Adjustment Needed) C-1	Control Pressure P-2.6		1
Control	Rate of Descent [NVG]	P175	Flight Control (FC)	Feel Control Movements K-7	Make Conditioned Association (Adjustment Needed) C-1	Control Pressure P-2.6		1
Control	Airspeed [NVG]	P011	Flight Control (FC)	Feel Control Movements K-7	Make Conditioned Association (Adjustment Needed) C-1	Control Pressure P-2.6		1
Control	Heading [NVG]	P102	Flight Control (FC)	Feel Control Movements K-7	Make Conditioned Association (Adjustment Needed) C-1	Control Pressure P-2.6		1
Control	Drift [NVG]	P060	Flight Control (FC)	Feel Control Movements K-7	Make Conditioned Association (Adjustment Needed) C-1	Control Pressure P-2.6		1

*Since some of the tasks are performed randomly, the total time for the function is greater than the sum of the length of the individual tasks.

FUNCTION 02 Adjust Climb Parameters [NVG] TOTAL TIME (Approximate) 90 Seconds*

TASKS			TASK #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT				SENSORY	COGNITIVE	PSYCHOMOTOR		
Control	Altitude [NVG]		P023	Flight Control (FC)	Feel Control Movements K-7	Make Conditioned Association (Adjustment Needed) C-1	Control Pressure P-2.6		1
Control	Rate of Climb [NVG]		P174	Flight Control (FC)	Feel Control Movements K-7	Make Conditioned Association (Adjustment Needed) C-1	Control Pressure P-2.6		1
Control	Airspeed [NVG]		P011	Flight Control (FC)	Feel Control Movements K-7	Make Conditioned Association (Adjustment Needed) C-1	Control Pressure P-2.6		1
Control	Heading [NVG]		P102	Flight Control (FC)	Feel Control Movements K-7	Make Conditioned Association (Adjustment Needed) C-1	Control Pressure P-2.6		1

*Since some of the tasks are performed randomly, the total time for the function is greater than the sum of the length of the individual tasks.

FUNCTION 03 Adjust Flight Parameters [NVG]

TOTAL TIME (Approximate)

Continuous*

TASKS			TASK #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT				SENSORY	COGNITIVE	PSYCHOMOTOR		
Control	Altitude [NVG]		P023	Flight Control (FC)	Feel Control Movements K-7	Make Conditioned Association (Adjustment Needed) C-1	Control Pressure P-2.6		1
Adjust	Altitude [NVG]		P015	Flight Control (FC)	Feel Control Movements K-7	Make Conditioned Association (Adjustment Needed) C-1	Control Pressure P-2.6		1
Control	Airspeed [NVG]		P011	Flight Control (FC)	Feel Control Movements K-7	Make Conditioned Association (Adjustment Needed) C-1	Control Pressure P-2.6		1
Adjust	Heading [NVG]		P101	Flight Control (FC)	Feel Control Movements K-7	Make Conditioned Association (Adjustment Needed) C-1	Control Pressure P-2.6		1
Adjust	Trim [NVG]		P208	Flight Control (FC)	Feel Control Movements K-7	Make Conditioned Association (Adjustment Needed) C-1	Control Pressure P-2.6		1

*The total time for the function will vary depending on the length of the segment.

FUNCTION 04 Adjust Level of Flight Parameters [NVG]

TOTAL TIME (Approximate)

190 Seconds*

TASKS			TASK #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT	SENSORY			COGNITIVE	PSYCHOMOTOR			
Control	Altitude [NVG]	P023	Flight Control (FC)	Feel Control Movements K-7	Make Conditioned Association (Adjustment Needed) C-1	Control Pressure P-2.6		1	
Control	Altitude [NVG]	P016	Flight Control (FC)	Feel Control Movements K-7	Make Conditioned Association (Adjustment Needed) C-1	Control Pressure P-2.6		1	
Control	Airspeed [NVG]	P011	Flight Control (FC)	Feel Control Movements K-7	Make Conditioned Association (Adjustment Needed) C-1	Control Pressure P-2.6		1	
Control	Heading [NVG]	P102	Flight Control (FC)	Feel Control Movements K-7	Make Conditioned Association (Adjustment Needed) C-1	Control Pressure P-2.6		1	

*Since some of the tasks are performed randomly, the total time for the function is greater than the sum of the length of the individual tasks.

FUNCTION 05 Adjust Map Display (Copilot) TOTAL TIME (Approximate) 1 Second*

TASKS			TASK #	SUBSYSTEM(S)	WORKLOAD COMPONENTS				SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT				SENSORY	COGNITIVE	PSYCHOMOTOR			
Check	Map Display Scale		C129	Maps/Multifunction Display (NM/MFD)	Visually Discriminate Sensor Image V-3.7	Verify Correct Image Scale C-1.2				.5
Press	RNG UP Key		C181	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2		Softkey	.5
Press	RNG DOWN Key		C179	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2		Softkey	.5
Press	DECENTER Key		C056	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2		Softkey	.5
Press	CENTER Key		C037	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2		Softkey	.5

*Since the function is performed randomly and only one task is performed each time the function is selected, the total time is less than the sum of the individual tasks.

FUNCTION 06 Adjust Map Display (Pilot)

TOTAL TIME (Approximate)

1 Second*

TASKS			WORKLOAD COMPONENTS				SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT	TASK #	SUBSYSTEM(S)	SENSORY	COGNITIVE	PSYCHOMOTOR		
Check	Map Display Scale	P129	Maps/Multifunction Display (NIM/MFD)	Visually Discriminate Sensor Image V-3.7	Verify Correct Image Scale C-1.2			.5
Press	RNG UP Key	P181	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2	Softkey	.5
Press	RNG DOWN Key	P179	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2	Softkey	.5
Press	DECENTER Key	P056	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2	Softkey	.5
Press	CENTER Key	P037	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2	Softkey	.5

*Since the function is performed randomly and only one task is performed each time the function is selected, the total time is less than the sum of the individual tasks.

FUNCTION 07 Align Navigation Systems

TOTAL TIME (Approximate)

33.5 Seconds

TASKS			TASK #	SUBSYSTEM(S)	WORKLOAD COMPONENTS				SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT				SENSORY	COGNITIVE	PSYCHOMOTOR			
Press	SYST Key (2)		C195	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2		Softkey	5
Press	NAV Key (2)		C151	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2		Softkey	5
Press	NAV INIT Key (2)		C150	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2		Softkey	5
Enter	CDU Data		C036	Control Display Unit (CDU)	Visually Locate Keys and Read Symbolic Display V-5.9	Encode and Verify Correct Entry (LAT/LONG) C-5.3	Press Softkey P-2.2		Softkey	20
Press	NORM Key (2)		C154	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2		Softkey	5
Press	INIT Key (2)		C114	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2		Softkey	5
Press	INS NAV Key (2)		C115	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2		Softkey	5
Press	GPS INIT Key (2)		C095	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2		Softkey	5

FUNCTION 07 Align Navigation Systems [Continued]

TASKS			TASK #	SUBSYSTEM(S)	WORKLOAD COMPONENTS				SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT				SENSORY	COGNITIVE	PSYCHOMOTOR			
Press	AHRS NORM Key (2)		C007	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2		Softkey	.5
Press	AHRS NAV Key (2)		C006	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2		Softkey	.5
Press	INIT Key (2)		C114	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2		Softkey	.5
Press	NAV Key (2)		C151	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2		Softkey	.5
Press	GPS DOP Key (2)		C094	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2		Softkey	.5
Press	HSD Key (2)		C107	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2		Softkey	.5

FUNCTION 08 Bore sight FLIR

TOTAL TIME (Approximate) 9 Seconds

TASKS			TASK #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT	SENSORY			COGNITIVE	PSYCHOMOTOR			
Press	FLIR CTRL Key (2)	C075	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2	Softkey	.5	
Check	FLIR ON Key (2)	C078	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status (ON) C-1.2	Press Softkey P-2.2	Softkey	.5	
Press	NEXT Key (2)	C153	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2	Softkey	.5	
Press	BORE Key (2)	C030	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status (ON) C-1.2	Press Softkey P-2.2	Softkey	.5	
Press	CALC Key (2)	C033	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status (ON) C-1.2	Press Softkey P-2.2	Softkey	.5	
Press	FOV NAR Key (2)	C083	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status (NAR) C-1.2	Press Softkey P-2.2	Softkey	.5	
Press	NEXT Key (2)	C153	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2	Softkey	.5	
Press	ADS SYM Key (2)	C005	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status (ON) C-1.2	Press Softkey P-2.2	Softkey	.5	
Press	RTN Key (2)	C183	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2	Softkey	.5	

FUNCTION 09 Check Approach Parameters

TOTAL TIME (Approximate)

1 Second*

TASKS			TASK #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT				SENSORY	COGNITIVE	PSYCHOMOTOR		
Check	Rate of Climb Indicator (Inflight)		P173	ANVIS Symbolology (ANV)	Visually Check Symbolic Indications V-4	Interpret Readout and Verify Correct Status (Readout Within Limits C-3.7			.5
Check	Airspeed (Inflight)		P010	ANVIS Symbolology (ANV)	Visually Check Symbolic Indications V-4	Interpret Readout and Verify Correct Status (Readout Within Limits C-3.7			.5
Check	Heading (Inflight)		P100	ANVIS Symbolology (ANV)	Visually Check Symbolic Indications V-4	Interpret Readout and Verify Correct Status (Readout Within Limits C-3.7			.5

*Since the function is performed randomly and only one task is performed each time the function is selected, the total time is less than the sum of the individual tasks.

FUNCTION 10 Check Avionics System

TOTAL TIME (Approximate)

208 Seconds

TASKS			SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT	TASK #		SENSORY	COGNITIVE	PSYCHOMOTOR		
Press	WCA Key (2)	C226	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2		.5
Press	EQP STAT Key (2)	C066	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2		.5
Press	OP RDY Key (2)	C160	Multifunction Display (MFD)	Visually Locate Key V 3.7	Verify Correct Status C-1.2	Press Softkey P-2.2		.5
	Standby	B191						200
Check	EQP STAT Key (2)	C065	Multifunction Display (MFD)	Visually Check Stat Matrix V-4.0	Verify Correct Status C-1.2			3
Press	RTN Key (2)	C183	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2		.5

FUNCTION 11 Check Climb Parameters TOTAL TIME (Approximate) 1 Second*

TASKS			SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT	TASK #		SENSORY	COGNITIVE	PSYCHOMOTOR		
Check	Rate of Climb Indicator (Inflight)	P173	ANVIS Symbolology (ANV)	Visually Check Symbolic Indications V-4	Interpret Readout and Verify Correct Status (Readout Within Limits) C-3.7			.5
Check	Airspeed (Inflight)	P010	ANVIS Symbolology (ANV)	Visually Check Symbolic Indications V-4	Interpret Readout and Verify Correct Status (Readout Within Limits) C-3.7			.5
Check	Heading (Inflight)	P100	ANVIS Symbolology (ANV)	Visually Check Symbolic Indications V-4	Interpret Readout and Verify Correct Status (Readout Within Limits) C-3.7			.5

*Since the function is performed randomly and only one task is performed each time the function is selected, the total time is less than the sum of the individual tasks.

FUNCTION 12 Check Flight Instruments (Auto) TOTAL TIME (Approximate) 1 Second*

TASKS			TASK #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT				SENSORY	COGNITIVE	PSYCHOMOTOR		
Check	Altitude		P013	ANVIS Symbolology (ANV)	Visually Check Symbolic Indications V-4	Interpret Readout and Verify Correct Status C-3.7			.5
Check	Airspeed		P008	ANVIS Symbolology (ANV)	Visually Check Symbolic Indications V-4	Interpret Readout and Verify Correct Status C-3.7			.5
Check	Heading		P098	ANVIS Symbolology (ANV)	Read Heading Indicator V-5.9	Verify Correct Heading C-1.2			.5
Check	Altitude		P021	ANVIS Symbolology (ANV)	Visually Check Symbolic Indications V-4	Interpret Readout and Verify Correct Status C-3.7			.5

*Since the function is performed randomly and only one task is performed each time the function is selected, the total time is less than the sum of the individual tasks.

FUNCTION 13 Check Flight Parameters

TOTAL TIME (Approximate)

1 Second*

TASKS			TASK #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT				SENSORY	COGNITIVE	PSYCHOMOTOR		
Check	Altitude (Infight)		P014	ANVIS Symbolology (ANV)	Visually Check Symbolic Indications V-4	Interpret Readout and Verify Correct Status (Readout Within Limits) C-3.7			.5
Check	Airspeed (Infight)		P010	ANVIS Symbolology (ANV)	Visually Check Symbolic Indications V-4	Interpret Readout and Verify Correct Status (Readout Within Limits) C-3.7			.5
Check	% TRQ Indication (Infight)		P230	Engine/ANVIS Symbolology (EN/AVN)	Visually Check Symbolic Indications V-4	Interpret Readout and Verify Correct Status (Readout Within Limits) C-3.7			.5
Check	Heading (Infight)		P100	ANVIS Symbolology (ANV)	Visually Check Symbolic Indications V-4	Interpret Readout and Verify Correct Status (Readout Within Limits) C-3.7			.5
Check	Trim Ball (Infight)		P207	ANVIS Symbolology (ANV)	Visually Check Symbolic Indications V-4	Interpret Readout and Verify Correct Status (Readout Within Limits) C-3.7			.5

*Since the function is performed randomly and only one task is performed each time the function is selected, the total time is less than the sum of the individual tasks.

FUNCTION 14 Check Level of Flight Parameters

TOTAL TIME (Approximate) 1 Second*

TASKS			TASK #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT				SENSORY	COGNITIVE	PSYCHOMOTOR		
Check	% TRQ Indication (Inflight)		P230	Engine/ANVIS Symbolology (EN/AVN)	Visually Check Symbolic Indications V-4	Interpret Readout and Verify Correct Status (Readout Within Limits) C-3.7			.5
Check	Altitude (Inflight)		P014	ANVIS Symbolology (ANV)	Visually Check Symbolic Indications V-4	Interpret Readout and Verify Correct Status (Readout Within Limits) C-3.7			.5
Check	Airspeed (Inflight)		P010	ANVIS Symbolology (ANV)	Visually Check Symbolic Indications V-4	Interpret Readout and Verify Correct Status (Readout Within Limits) C-3.7			.5
Check	Heading (Inflight)		P100	ANVIS Symbolology (ANV)	Visually Check Symbolic Indications V-4	Interpret Readout and Verify Correct Status (Readout Within Limits) C-3.7			.5

*Since the function is performed randomly and only one task is performed each time the function is selected, the total time is less than the sum of the individual tasks.

FUNCTION 15 Check Map Display System (Coptilot)

TOTAL TIME (Approximate) 5 Seconds

TASKS			TASK #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT				SENSORY	COGNITIVE	PSYCHOMOTOR		
Check	Map Display Scale		C129	Maps/Multifunction Display (NM/MFD)	Visually Discriminate Sensor Image V-3.7	Verify Correct Image Scale C-1.2			.5
Press	RNG UP Key		C181	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2	Softkey	.5
Press	RNG DOWN Key		C179	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2	Softkey	.5
Press	DECENTER Key		C056	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2	Softkey	.5
Press	CENTER Key		C037	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2	Softkey	.5

FUNCTION 16 Check Map Display System (Pilot)

TOTAL TIME (Approximate) 5 Seconds

TASKS			TASK #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT				SENSORY	COGNITIVE	PSYCHOMOTOR		
Check	Map Display Scale		P129	Maps/Multifunction Display (NM/MFD)	Visually Discriminate Sensor Image V-3.7	Verify Correct Image Scale C-1.2			.5
Press	RNG UP Key		P181	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2	Softkey	.5
Press	RNG DOWN Key		P179	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2	Softkey	.5
Press	DECENTER Key		P056	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2	Softkey	.5
Press	CENTER Key		P037	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2	Softkey	.5

FUNCTION 17 Configure Flight Director

TOTAL TIME (Approximate)

5 Seconds

TASKS		TASK #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Press	SYST Key (4)	P195	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2		.5
Press	FPLN Key (4)	P085	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2		.5
Press	FPLN LOAD Key (4)	P086	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2		.5
Press	FPLN ON Key (4)	P087	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2		.5
Press	VSD Key (4)	P225	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2		.5

FUNCTION 18 Configure Navigation Radios

TOTAL TIME (Approximate)

8 Seconds

TASKS			SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT	TASK #		SENSORY	COGNITIVE	PSYCHOMOTOR		
Press	F/D Key (2)	C068	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2	Softkey	.5
Press	NEXT Key (2)	C153	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2	Softkey	.5
Press	ADF Key (2)	C004	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2	Softkey	.5
Press	VOR TAC Key (2)	C224	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2	Softkey	.5
Press	HSD Key (2)	C107	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2	Softkey	.5
Press	NAV AIDS Key (2)	C149	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2	Softkey	.5
Press	TCN BRG Key (2)	C202	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2	Softkey	.5
Press	RTN Key (2)	C183	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2	Softkey	.5

FUNCTION 19 Depart Rendezvous [NVG]

TOTAL TIME (Approximate) 27 Seconds

TASKS			SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT	TASK #		SENSORY	COGNITIVE	PSYCHOMOTOR		
Set	Refuel Panel	C177	Fuel (EF)	Visually Check Switch Positions and Placement of Switches V-4	Decide Desired Position C-1.2	Move Switches P-2.2		10
Transmit	Message (Brief)	C140	Communication (UC)	Receive Speech Feedback A-4.3	Encode Message (Refueling Complete) C-5.3	Press Switch and Speak P-2.2		3
Receive	Acknowledgment	C002	Communication (UC)	Receive Auditory Message A-4.9	Make Conditioned Association C-1			2
Press	VSD Key (1)	C225	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2	Softkey	.5
Press	IFF Key (1)	C110	Multifunction Display/Transponder (MFD/TP)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2	Softkey	.5
Press	BCN STBY Key (1)	C028	Transponder (TP)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2	Softkey	.5
Press	IFF STBY Key (1)	C113	Multifunction Display/Transponder (MFD/TP)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2	Softkey	.5
Press	SYST Key (1)	C195	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2	Softkey	5

FUNCTION 19 Depart Rendezvous [NVG] [Continued]

TASKS			TASK #	SUBSYSTEM(S)	WORKLOAD COMPONENTS				SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT				SENSORY	COGNITIVE	PSYCHOMOTOR			
Press	FUEL/POWER Key (1)		C091	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2		Softkey	.5
Check	Fuel Summary		C090	Fuel (EF)	Visually Inspect Symbolic Indication V-4	Interpret Symbolic Readout (Quantity) and Make Judgment (Enough Fuel) C-6.8				3
Press	VSD Key (1)		C225	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2		Softkey	.5

FUNCTION 20 Engage Level Flight (Auto)

TOTAL TIME (Approximate)

18.5 Seconds

TASKS			TASK #	SUBSYSTEM(S)	WORKLOAD COMPONENTS				SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT	SENSORY			COGNITIVE	PSYCHOMOTOR				
Press	F/D Key (1)	C068	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status (F/S Control Layer) C-1.2	Press Softkey P-2.2	Softkey	.5		
Enter	Airspeed	C009	Control Display Unit (CDU)	Visually Locate Keys and Read Symbolic Display V-5.9	Encode and Verify Correct Entry C-5.3	Type Entry P-2.2	Softkey	4		
Enter	BARO Altitude	C026	Control Display Unit (CDU)	Visually Locate Keys and Read Symbolic Display V-5.9	Encode and Verify Correct Entry C-5.3	Type Entry P-2.2	Softkey	4		
Enter	Heading	C099	Control Display Unit (CDU)	Visually Locate Keys and Read Symbolic Display V-5.9	Encode and Verify Correct Entry C-5.3	Type Entry P-2.2	Softkey	4		
Press	A/S SEL Key (1)	C018	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status (F/S Control Layer) C-1.2	Press Softkey P-2.2	Softkey	.5		
Press	BALT SEL Key (1)	C025	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status (F/S Control Layer) C-1.2	Press Softkey P-2.2	Softkey	.5		
Press	HDG SEL Key (1)	C097	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status (F/S Control Layer) C-1.2	Press Softkey P-2.2	Softkey	.5		
Press	RTN Key (1)	C183	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status (F/S Control Layer) C-1.2	Press Softkey P-2.2	Softkey	.5		

FUNCTION 21 Establish Approach [NVG]

TOTAL TIME (Approximate) 7.5 Seconds

TASKS		TASK #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Check	% TRQ Indication (Inflight)	P230	Engine/ANVIS Symbolology (EN/AVN)	Visually Check Symbolic Indications V-4	Interpret Readout and Verify Correct Status (Readout Within Limits) C-3.7			.5
Adjust	Power [NVG]	P166	Night Vision Goggles (VG)	Visually Detect Aircraft Movement G-1	Make Conditioned Association (Adjustment Needed) C-1			2
Check	% TRQ Indication (Inflight)	P230	Engine/ANVIS Symbolology (EN/AVN)	Visually Check Symbolic Indications V-4	Interpret Readout and Verify Correct Status (Readout Within Limits) C-3.7			.5
Press	F/D Key (4)	P068	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2	Softkey	.5
Press	HVR SYM Key (4)	P108	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2	Softkey	.5
Press	RTN Key (4)	P183	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2	Softkey	.5

TOTAL TIME (Approximate) 4.5 Seconds

FUNCTION 22 Establish Climb [NVG]

TASKS			TASK #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT				SENSORY	COGNITIVE	PSYCHOMOTOR		
Check	% TRQ Indication (Inflight)		P230	Engine/ANVIS Symbolology (EN/AVN)	Visually Check Symbolic Indications V-4	Interpret Readout and Verify Correct Status (Readout Within Limits) C-3.7			.5
Adjust	Power [NVG]		P166	Night Vision Goggles (VG)	Visually Detect Aircraft Movement G-1	Make Conditioned Association (Adjustment Needed) C-1			2
Check	% TRQ Indication (Inflight)		P230	Engine/ANVIS Symbolology (EN/AVN)	Visually Check Symbolic Indications V-4	Interpret Readout and Verify Correct Status (Readout Within Limits) C-3.7			.5

FUNCTION 23 Establish Hover [NVG]

TOTAL TIME (Approximate) 3.5 Seconds

TASKS			TASK #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT				SENSORY	COGNITIVE	PSYCHOMOTOR		
Adjust	Power [NVG]		P166	Night Vision Goggles (VG)	Visually Detect Aircraft Movement G-1	Make Conditioned Association (Adjustment Needed) C-1			2
Check	% TRQ Indication (Inflight)		P230	Engine/ANVIS Symbology (EN/AVN)	Visually Check Symbolic Indications V-4	Interpret Readout and Verify Correct Status (Readout Within Limits) C-3.7			.5

FUNCTION 24 Establish Level of Flight [NVG] TOTAL TIME (Approximate) 5 Seconds

TASKS		TASK #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Adjust	Altitude [NVG]	P022	Night Vision Goggles (VG)	Visually Detect Aircraft Movement G-1	Make Conditioned Association (Adjustment Needed) C-1			1
Check	% TRQ Indication (Inflight)	P230	Engine/ANVIS Symbology (EN/AVN)	Visually Check Symbolic Indications V-4	Interpret Readout and Verify Correct Status (Readout Within Limits) C-3.7			5
Adjust	Power [NVG]	P166	Night Vision Goggles (VG)	Visually Detect Aircraft Movement G-1	Make Conditioned Association (Adjustment Needed) C-1			2

FUNCTION 25 Land Aircraft [NVG]

TOTAL TIME (Approximate)

44 Seconds*

TASKS			TASK #	SUBSYSTEM(S)	WORKLOAD COMPONENTS				SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT				SENSORY	COGNITIVE	PSYCHOMOTOR			
Maintain	Obstacle Clearance [NVG]		P159	Flight Control/Night Vision Goggles (FC/NVG)	Feel Control Movements/Visually Orient Aircraft K-7/G-5	Make Conditioned Association (Adjustment Needed) C-1	Control Pressure P-2.6			1
Control	Altitude [NVG]		P016	Flight Control (FC)	Feel Control Movements K-7	Make Conditioned Association (Adjustment Needed) C-1	Control Pressure P-2.6			1
Control	Attitude [NVG]		P023	Flight Control (FC)	Feel Control Movements K-7	Make Conditioned Association (Adjustment Needed) C-1	Control Pressure P-2.6			1
Control	Heading [NVG]		P102	Flight Control (FC)	Feel Control Movements K-7	Make Conditioned Association (Adjustment Needed) C-1	Control Pressure P-2.6			1
Control	Drift [NVG]		P060	Flight Control (FC)	Feel Control Movements K-7	Make Conditioned Association (Adjustment Needed) C-1	Control Pressure P-2.6			1
Perform	Touchdown [NVG]		P206	Flight Control/Night Vision Goggles (FC/NVG)	Feel Control Movements/Visually Orient Aircraft K-7/G-5	Make Conditioned Association (Adjustment Needed) C-1	Control Pressure P-2.6			5
Check	Obstacle Clearance [NVG]		C158	Night Vision Goggles (NVG)	Visually Register Obstacles G-1	Make Conditioned Association (Aircraft Clear) C-1				3

*Since some of the tasks are performed randomly, the total time for the function is greater than the sum of the length of the individual tasks.

FUNCTION 26 Load Aircraft (Internal)

TOTAL TIME (Approximate)

98 Seconds

TASKS			TASK #	SUBSYSTEM(S)	WORKLOAD COMPONENTS				SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT				SENSORY	COGNITIVE	PSYCHOMOTOR			
Monitor	Loading		C126	Cargo (UCA)	Visually Scan Cargo Compartment V-7	Verify Correct Procedure C-1.2	Move Head P-2.6			60
Verify	Load Secure		C125	Cargo (UCA)	Visually Inspect Cargo Compartment V-4	Verify Correct Status C-1.2	Move Head P-2.6			30
Transmit	Communication (Crewchief)		C046	Communication (UC)	Receive Speech Feedback A-4.3	Encode Message (Check Load) C-5.3	Press Switch and Speak P-2.2			3
Receive	Communication (Crewchief)		C045	Communication (UC)	Receive Auditory Message A-4.9	Decode Message (Load Secure) C-5.3				3

FUNCTION 27 Load Mission Plan

TOTAL TIME (Approximate)

21 Seconds

TASKS			TASK #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT	SENSORY			COGNITIVE	PSYCHOMOTOR			
Insert	DTM Cartridge	C061	Data Transfer Unit (DTU)	Visually Coordinate Hand Movement V-5	Verify Correct Status (Cartridge In) C-1.2	Insert Cartridge P-2.6		4	
Check	Bit Light	C029	Data Transfer Unit (DTU)	Visually Check and Register Light V-1	Verify Correct Status (Light Not Illuminated) C-1.0	Move Switches P-2.2		.5	
Press	SYST Key (2)	C195	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2	Softkey	.5	
Press	MISSN LOAD Key (2)	C142	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status (First Depression) C-1.2	Press Softkey P-2.2	Softkey	.5	
Press	MISSN LOAD Key (2)	C142	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status (Second Depression) C-1.2	Press Softkey P-2.2	Softkey	.5	
Press	LEGS Key (2)	C122	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status (Second Depression) C-1.2	Press Softkey P-2.2	Softkey	.5	
Verify	Mission Loaded	C141	Multifunction Display (MFD)	Visually Check Symbolic Indications V-4	Interpret Readout and Verify Correct Status (Mission Loaded) C-3.7			10	
Press	HSD Key (2)	C107	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2	Softkey	.5	

FUNCTION 28 Mission Change

TOTAL TIME (Approximate) 18 Seconds

TASKS			TASK #	SUBSYSTEM(S)	WORKLOAD COMPONENTS				SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT	SENSORY			COGNITIVE	PSYCHOMOTOR				
Note	Message Alert	C138	Communication (UC)	Register Sound/Visually Register Advisory A-1/V-1	Interpret Symbolic Readout C-3.7					1
Press	SYST Key (1)	C195	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2		Softkey		.5
Press	ATHS MENU Key (1)	C020	Communication/ Multifunction Display (UC/MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2		Softkey		.5
Press	DISP MSGS Key (1)	C058	Communication/ Multifunction Display (UC/MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2		Softkey		.5
Read	Message	C135	Communication (UC)	Read Symbolic Display V-5.9	Interpret Symbolic Readout C-3.7					12
Press	RTN Key (1)	C183	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2		Softkey		.5

FUNCTION 29 Monitor Audio

TOTAL TIME (Approximate)

Continuous*

TASKS			TASK #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT				SENSORY	COGNITIVE	PSYCHOMOTOR		
Monitor	Audio		B024	Communication/ Survivability (UC/US)	Register Sound A-1	Recognize Auditory Signal C-1			(c)

*The total time for this function varies with the segment in which the function occurs.

FUNCTION 30 Monitor External Visual Field (Coptilot) [NVG] **TOTAL TIME (Approximate)** **Continuous***

T A S K S			TASK #	SUBSYSTEM(S)	W O R K L O A D C O M P O N E N T S			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT				SENSORY	COGNITIVE	PSYCHOMOTOR		
Check	External Scene [NVG]		C067	Night Vision Goggles (VG)	Visually Register Obstacles G-1	Make Conditioned Association (Flight Path Clear) C-1			(c)

*The total time for this function will vary depending on the length of the segment.

FUNCTION 31 Monitor External Visual Field (Pilot) [NVG]
TOTAL TIME (Approximate)
Continuous*

T A S K S		TASK #	SUBSYSTEM(S)	W O R K L O A D C O M P O N E N T S			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
				SENSORY	COGNITIVE	PSYCHOMOTOR		
Check	External Scene [NVG]	P067	Night Vision Goggles (VG)	Visually Register Obstacles G-1	Make Conditioned Association (Flight Path Clear) G-1			(c)

*The total time for this function will vary depending on the length of the segment.

FUNCTION 32 Monitor Flight Controls TOTAL TIME (Approximate) Continuous*

TASKS			TASK #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT				SENSORY	COGNITIVE	PSYCHOMOTOR		
Monitor	Flight Controls		P069	Flight Control (FC)	Make Conditioned Association K-1	Make Conditioned Association C-1			(c)

*The total time for this function will vary depending on the length of the segment.

FUNCTION 33 Monitor FLIR Image (Coptilot) TOTAL TIME (Approximate) Continuous

TASKS			TASK #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT				SENSORY	COGNITIVE	PSYCHOMOTOR		
Check	FLIR Image		C076	Forward-Looking Infrared (FLIR) (FLR)	Visually Check Sensor Image V-4	Evaluate Sensory Feedback C-4.6			(c)

FUNCTION 34 Monitor FLIR Image (Pilot) TOTAL TIME (Approximate) Continuous

TASKS			TASK #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT				SENSORY	COGNITIVE	PSYCHOMOTOR		
Check	FLIR Image		P076	Forward-Looking Infrared (FLIR) (FLR)	Visually Check Sensor Image V-4	Evaluate Sensory Feedback C-4.6			(c)

FUNCTION 35 Monitor RADAR Image (Coptilot) TOTAL TIME (Approximate) Continuous

TASKS			TASK #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT				SENSORY	COGNITIVE	PSYCHOMOTOR		
Check	RADAR Image		C 170	RADAR (NRA)	Visually Check Sensor Image V-4	Evaluate Sensory Feedback C-4.6			(c)

FUNCTION 36 Monitor RADAR Image (Pilot) TOTAL TIME (Approximate) Continuous

TASKS			SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT	TASK #		SENSORY	COGNITIVE	PSYCHOMOTOR		
Check	RADAR Image	P 170	RADAR (NRA)	Visually Check Sensor Image V-4	Evaluate Sensory Feedback C-4.6			(c)

TOTAL TIME (Approximate) 3.5 Seconds

FUNCTION 37 Monitor Threat (Copilot)

TASKS			TASK #	SUBSYSTEM(S)	WORKLOAD COMPONENTS				SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT				SENSORY	COGNITIVE	PSYCHOMOTOR			
Check	Direction Display		C057	Survivability (US)	Detect Visual Image V-1	Recognize Visual Signal (Threat Present) C-3.7				3

FUNCTION 38 Monitor Threat (Pilot)

TOTAL TIME (Approximate)

3.5 Seconds

TASKS			TASK #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT				SENSORY	COGNITIVE	PSYCHOMOTOR		
Check	Direction Display		P057	Survivability (US)	Detect Visual Image V-1	Recognize Visual Signal (Threat Present) C-3.7			3

TOTAL TIME (Approximate) 240 Seconds*

FUNCTION 39 Perform Aerial Refueling [NVG]

TASKS		TASK #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Transmit	Message (Brief)	C140	Communication (UC)	Receive Speech Feedback A-4.3	Encode Message (Present Status) C-5.3	Press Switch and Speak P-2.2	Springloaded Press - 2 Positions (SP-2)	3
Receive	Message	C136	Communication (UC)	Receive Auditory Message A-4.9	Decode Message C-5.3			5
Transmit	Acknowledgment	C003	Communication (UC)	Receive Speech Feedback A-4.3	Encode Message C-5.3	Press Switch and Speak P-2.2	Springloaded Press - 2 Positions (SP-2)	2
Verify	Probe Hookup	B167	Night Vision Goggles (VG)	Visually Discriminate Alignment Differences G-5.0	Evaluate Sensory Feedback and Make Judgment (Connected) C-4.6			4
Transmit	Message (Brief)	C140	Communication (UC)	Receive Speech Feedback A-4.3	Encode Message (Begin Refueling) C-5.3	Press Switch and Speak P-2.2	Springloaded Press - 2 Positions (SP-2)	3
Receive	Acknowledgment	C002	Communication (UC)	Receive Auditory Message A-4.9	Make Conditioned Association C-1			2
Press	INST Key (1)	C116	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status (Power Train Display) C-1.2	Press Softkey P-2.2	Softkey	5
Check	Fuel Indicator	C089	Fuel/Multifunction Display (EF/MFD)	Read Symbolic Indication V-5.9	Interpret Symbolic Readout and Make Judgment (Enough Fuel) C-4.6			3

*Since some of the tasks are performed randomly, the total time for the function is greater than the sum of the length of the individual tasks.

FUNCTION 39 Perform Aerial Refueling [NVG] [Continued]

TASKS		TASK #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Transmit	Message (Brief)	C140	Communication (UC)	Receive Speech Feedback A-4.3	Encode Message (Refueling Complete) C-5.3	Press Switch and Speak P-2.2	Springloaded Press - 2 Positions (SP-2)	3
Receive	Acknowledgment	C002	Communication (UC)	Receive Auditory Message A-4.9	Make Conditioned Association C-1			2
Verify	Refueling Ceased	C178	Fuel/Multifunction Display (EF/MFD)	Read Symbolic Indication V-5.9	Interpret Symbolic Readout and Make Judgment (No Increase) C-4.6			4
Verify	Probe Unhooked	B168	Night Vision Goggles (VG)	Visually Discriminate Alignment Differences G-5.0	Evaluate Sensory Feedback and Make Judgment (Disconnected) C-4.6			2

TOTAL TIME (Approximate) 11.5 Seconds

FUNCTION 40 Perform After Landing Check

TASKS			SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT	TASK #		SENSORY	COGNITIVE	PSYCHOMOTOR		
Press	SYST Key (1)	C195	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2	Softkey	.5
Press	CHECK LISTS Key (1)	C039	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2	Softkey	.5
Press	SEQ Key (1)	C186	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2	Softkey	.5
Press	GET LIST Key (1)	C092	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2	Softkey	.5
Check	Radios	C172	Communication/Multifunction Display (UC/MFD)	Visually Check Symbolic Indications V-4	Interpret Symbolic Readouts and Verify Correct C-5.3			4
Set	TAILWHEEL Switch	C199	Gear (FG)	Visually Locate Switch V-3.7	Decide Correct Position (Unlock) C-1.2	Press Switch P-2.2	Springloaded Press (SP)	1
Check	Tailwheel Advisory Light	C198	Advisory (UAD)	Visually Register Light V-1	Verify Correct Status C-1.2			1

TOTAL TIME (Approximate) 64.5 Seconds

FUNCTION 41 Perform Before Hover Check

TASKS			TASK #	SUBSYSTEM(S)	WORKLOAD COMPONENTS				SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT				SENSORY	COGNITIVE	PSYCHOMOTOR			
Check	Rotor RPM		P182	ANVIS Symbology (ANV)	Visually Inspect Symbolic Indications V-4	Interpret Sensory and Symbolic Readouts and Verify Correct Status (100%) C-3.7				.5
Press	F/D Key (4)		P068	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2		Softkey	.5
Press	HVR SYM Key (4)		P108	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2		Softkey	.5
Press	RTN Key (4)		P183	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2		Softkey	.5
Perform	HIT Check		P106	Flight Control/ Multifunction Display (FC/MFD)	Feel Control Movement/ Visually Monitor Symbolic Indications K-7/V-4	Interpret Sensory and Symbolic Readouts and Make Comparison (Indication Same as Performance Charts) C-3.7	Control Pressure P-2.6			60

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FUNCTION 42 Perform Before Landing Check TOTAL TIME (Approximate) 26 Seconds

TASKS		TASK #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Press	SYST Key (1)	C195	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2	Softkey	.5
Press	CHECK LISTS Key (1)	C039	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2	Softkey	.5
Press	SEQ Key (1)	C186	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2	Softkey	.5
Press	GET LIST Key (1)	C092	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2	Softkey	.5
Check	Rotor RPM	C182	ANVIS Symbolology (ANV)	Visually Inspect Symbolic Indications V-4	Interpret Sensory and Symbolic Readouts and Verify Correct Status (100%) C-3.7			.5
Check	WCA Light	C227	Multifunction Display (MFD)	Visually Register Light V-1	Verify Correct Status (Light Extinguished) C-1.2			1
Check	Radios	C172	Communication/ Multifunction Display (UC/MFD)	Visually Check Symbolic Indications V-4	Interpret Symbolic Readouts and Verify Correct C-5.3			1
Check	Park Brake	C161	Brakes (FB)	Visually Inspect Handle Position V-4	Verify Current Position Correct (Unlocked) C-2			1

FUNCTION 42 Perform Before Landing Check [Continued]

TASKS			TASK #	SUBSYSTEM(S)	WORKLOAD COMPONENTS				SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT	SENSORY			COGNITIVE	PSYCHOMOTOR				
Press	F/D Key (2)	C068	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status (F/D Control Layer) C-1.2	Press Softkey P-2.2	Softkey	.5		
Press	A/S SEL Key (2)	C018	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status (Off) C-1.2	Press Softkey P-2.2	Softkey	.5		
Press	BALT SEL Key (2)	C025	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status (Off) C-1.2	Press Softkey P-2.2	Softkey	.5		
Press	HDG SEL Key (2)	C097	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status (Off) C-1.2	Press Softkey P-2.2	Softkey	.5		
Press	RTN Key (2)	C183	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2	Softkey	.5		
Check	Tailwheel Advisory Light	C198	Advisory (UAD)	Visually Register Light V-1	Verify Correct Status (Locked) C-1.2			1		
Press	ASE Key	C019	Survivability/Control Display Unit (US/CDU)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2	Softkey	.5		
Press	MASTER Key	C133	Survivability/Control Display Unit (US/CDU)	Visually Locate Key V-3.7	Verify Correct Status (Off) C-1.2	Press Softkey P-2.2	Softkey	.5		

FUNCTION 42 Perform Before Landing Check [Continued]

T A S K S			TASK #	SUBSYSTEM(S)	W O R K L O A D C O M P O N E N T S			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT	SENSORY			COGNITIVE	PSYCHOMOTOR			
Check	Crew	C052	Communication (UC)	Receive Speech Feedback A-4.3	Encode Message C-5.3	Press Switch and Speak P-2.2	Springloaded Press - 2 Positions (SP-2)	3	
Receive	Communication (Crewchief)	C045	Communication (UC)	Receive Auditory Message A-4.9	Decode Message (Crew Secure) C-5.3			3	
Press	VSD Key (1)	C225	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status (VSD Control Layer) C-1.2	Press Softkey P-2.2	Softkey	5	

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TOTAL TIME (Approximate) 26 Seconds

FUNCTION 43 Perform Before Landing Check (LZ)

TASKS		TASK #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
				SENSORY	COGNITIVE	PSYCHOMOTOR		
Press	SYST Key (1)	C195	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2	Softkey	.5
Press	CHECK LISTS Key (1)	C039	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2	Softkey	.5
Press	SEQ Key (1)	C186	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2	Softkey	.5
Press	GET LIST Key (1)	C092	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2	Softkey	.5
Check	Rotor RPM	C182	ANVIS Symbolology (ANV)	Visually Inspect Symbolic Indications V-4	Interpret Sensory and Symbolic Readouts and Verify Correct Status (100%) C-3.7			.5
Check	WCA Light	C227	Multifunction Display (MFD)	Visually Register Light V-1	Verify Correct Status (Light Extinguished) C-1.2			1
Check	Radios	C172	Communication/ Multifunction Display (UC/MFD)	Visually Check Symbolic Indications V-4	Interpret Symbolic Readouts and Verify Correct C-5.3			1
Check	Park Brake	C161	Brakes (FB)	Visually Inspect Handle Position V-4	Verify Current Position Correct (Unlocked) C-2			1

FUNCTION 43 Perform Before Landing Check (LZ) [Continued]

TASKS			TASK #	SUBSYSTEM(S)	WORKLOAD COMPONENTS				SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT				SENSORY	COGNITIVE	PSYCHOMOTOR			
Press	F/D Key (2)		C068	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status (F/D Control Layer) C-1.2	Press Softkey P-2.2		Softkey	.5
Press	A/S SEL Key (2)		C018	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status (Off) C-1.2	Press Softkey P-2.2		Softkey	.5
Press	BALT SEL Key (2)		C025	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status (Off) C-1.2	Press Softkey P-2.2		Softkey	.5
Press	HDG SEL Key (2)		C097	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status (Off) C-1.2	Press Softkey P-2.2		Softkey	.5
Press	RTN Key (2)		C183	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2		Softkey	.5
Check	Tailwheel Advisory Light		C198	Advisory (UAD)	Visually Register Light V-1	Verify Correct Status (Locked) C-1.2				1
Press	ASE Key		C019	Survivability/Control Display Unit (US/CDU)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2		Softkey	.5
Press	MASTER Key		C133	Survivability/Control Display Unit (US/CDU)	Visually Locate Key V-3.7	Verify Correct Status (Off) C-1.2	Press Softkey P-2.2		Softkey	.5

FUNCTION 43 Perform Before Landing Check (LZ) [Continued]

TASKS		TASK #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Check	Load Secure	C124	Communication (UC)	Receive Speech Feedback A-4.3	Encode Message C-5.3	Press Switch and Speak P-2.2	Springloaded Press - 2 Positions (SP-2)	3
Receive	Communication (Crewchief)	C045	Communication (UC)	Receive Auditory Message A-4.9	Decode Message (Crew Secure) C-5.3			3
Press	VSD Key (1)	C225	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status (VSD Control Layer) C-1.2	Press Softkey P-2.2	Softkey	.5

FUNCTION 44 Perform Before Takeoff Check

TOTAL TIME (Approximate)

36 Seconds*

TASKS		TASK #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Press	SYST Key (1)	C195	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2	Softkey	.5
Press	CHECK LISTS Key (1)	C039	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2	Softkey	.5
Press	SEQ Key (1)	C186	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2	Softkey	.5
Press	GET LIST Key (1)	C092	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2	Softkey	.5
Press	INST Key (4)	P116	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2	Softkey	.5
Check	Fuel Summary (4)	P090	Fuel (EF)	Visually Inspect Symbolic Indication V-4	Interpret Symbolic Readout (Quantity) and Make Judgment (Enough Fuel) C-6.8			3
Check	Engine Display (4)	P062	Engine/Multifunction Display (EN/MFD)	Visually Scan Symbolic Indications V-7	Interpret Sensory and Symbolic Readouts and Verify Correct Status (Readouts Within Limits) C-3.7			5
Press	VSD Key (3)	P225	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2	Softkey	.5

*Total time does not include tasks the pilot will perform while the copilot is performing his tasks.

FUNCTION 44 Perform Before Takeoff Check [Continued]

TASKS			TASK #	SUBSYSTEM(S)	WORKLOAD COMPONENTS				SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT				SENSORY	COGNITIVE	PSYCHOMOTOR			
Check	Vertical Situation Display (3)		P220	Multifunction Display (MFD)	Visually Scan Symbolic Indications V-7	Interpret Sensory and Symbolic Readouts and Verify Correct Status C-3.7				5
Press	DCLT Key (3)		P055	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2	Softkey		.5
Press	FLIR Key (3)		P077	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2	Softkey		.5
Press	FPV Key (3)		P088	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2	Softkey		.5
Press	FOV Key (3)		P082	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2	Softkey		.5
Press	POL Key (3)		P164	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2	Softkey		.5
Press	SYST Key (2)		C195	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2	Softkey		.5
Press	FPLN Key (2)		C085	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2	Softkey		.5

FUNCTION 44 Perform Before Takeoff Check [Continued]

TASKS		TASK #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Press	FPLN ON Key (2)	C087	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2	Softkey	.5
Press	HSD Key (2)	C107	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2	Softkey	.5
Press	F/D Key (2)	C068	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2	Softkey	.5
Press	WYPT Key (2)	C228	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2	Softkey	.5
Press	CRS Key (2)	C053	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2	Softkey	.5
Press	RTN Key (2)	C183	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2	Softkey	.5
Press	WCA Key (2)	C226	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2	Softkey	.5
Check	CAUTION/WARNING/ Advisory Display (2)	C035	Advisory/ Multifunction Display (UAD/MFD)	Visually Check Symbolic Display V-4	Verify Correct Status (No Entries C-1.2	Press Softkey P-2.2	Softkey	1

FUNCTION 44 Perform Before Takeoff Check (Continued)

TASKS			SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT	TASK #		SENSORY	COGNITIVE	PSYCHOMOTOR		
Press	RTN Key (2)	C183	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2	Softkey	.5
Check	Park Brake	C161	Brakes (FB)	Visually Inspect Handle Position V-4	Verify Current Position Correct (Unlocked) C-2			1
Check	Radios	C172	Communication/ Multifunction Display (UC/MFD)	Visually Check Symbolic Indications V-4	Interpret Symbolic Readouts and Verify Correct C-5.3			4
Press	ASE Key	C019	Survivability/ Control Display Unit (US/CDU)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2	Softkey	.5
Press	MASTER Key	C133	Survivability/ Control Display Unit (US/CDU)	Visually Locate Key V-3.7	Verify Correct Status (On) C-1.2	Press Softkey P-2.2	Softkey	.5
Press	HSD Key (4)	P107	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status (On) C-1.2	Press Softkey P-2.2	Softkey	.5
Press	RDR Key (4)	P176	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status (On) C-1.2	Press Softkey P-2.2	Softkey	.5
Press	TA Key (4)	P196	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status (On) C-1.2	Press Softkey P-2.2	Softkey	.5

FUNCTION 44 Perform Before Takeoff Check (Continued)

TASKS			TASK #	SUBSYSTEM(S)	WORKLOAD COMPONENTS				SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT				SENSORY	COGNITIVE	PSYCHOMOTOR			
Press	DCLT Key (4)		P055	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2		Softkey	.5
Press	MAP Key (2)		C131	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2		Softkey	.5
Press	CTR Key (2)		C054	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2		Softkey	.5
Press	DCLT Key (2)		C055	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2		Softkey	.5
Press	VSD Key (1)		C225	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2		Softkey	.5
Press	RDR Key (1)		C176	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2		Softkey	.5
Press	TF Key (1)		C203	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2		Softkey	.5
Press	GW/TF Key (1)		C093	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2		Softkey	.5

FUNCTION 44 Perform Before Takeoff Check [Continued]

TASKS			TASK #	SUBSYSTEM(S)	WORKLOAD COMPONENTS				SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT				SENSORY	COGNITIVE	PSYCHOMOTOR			
Press	DCLT Key (1)		P055	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2		Softkey	.5
Press	CALT Key (1)		C034	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status (Radar Clearance Altitude) C-1.2	Press Softkey P-2.2		Softkey	.5
Receive	Communication (Crewchief)		C045	Communication (UC)	Receive Auditory Message A-4.9	Decode Message (Crew Secure) C-5.3				3

FUNCTION 45 Perform Before Takeoff Check (LZ)

TOTAL TIME (Approximate)

31 Seconds

TASKS			TASK #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT				SENSORY	COGNITIVE	PSYCHOMOTOR		
Press	SYST Key (1)		C195	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2	Softkey	.5
Press	CHECK LISTS Key (1)		C039	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2	Softkey	.5
Press	SEQ Key (1)		C186	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2	Softkey	.5
Press	GET LIST Key (1)		C092	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2	Softkey	.5
Press	INST Key (2)		C116	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2	Softkey	.5
Check	Fuel Summary (2)		C090	Fuel (EF)	Visually Inspect Symbolic Indication V-4	Interpret Symbolic Readout (Quantity) and Make Judgment (Enough Fuel) C-6.8			3
Check	Engine Display (2)		C062	Engine/Multifunction Display (EN/MFD)	Visually Scan Symbolic Indications V-7	Interpret Sensory and Symbolic Readouts and Verify Correct Status (Readouts Within Limits) C-3.7			5
Press	WCA Key (2)		C226	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2	Softkey	.5

FUNCTION 45 Perform Before Takeoff Check (LZ) [Continued]

TASKS			TASK #	SUBSYSTEM(S)	WORKLOAD COMPONENTS				SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT				SENSORY	COGNITIVE	PSYCHOMOTOR			
Check	CAUTION/WARNING/ Advisory Display (2)		C035	Advisory/ Multifunction Display (UAD/MFD)	Visually Check Symbolic Display V-4	Verify Correct Status (No Entries) C-1.2				1
Press	RTN Key (2)		C183	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2	Softkey		.5
Check	Park Brake		C161	Brakes (FB)	Visually Inspect Handle Position V-4	Verify Current Position Correct (Unlocked) C-2				1
Check	Radios		C172	Communication/ Multifunction Display (UC/MFD)	Visually Check Symbolic Indications V-4	Interpret Symbolic Readouts and Verify Correct C-5.3				4
Press	ASE Key		C019	Survivability/ Control Display Unit (US/CDU)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2	Softkey		.5
Press	MASTER Key		C133	Survivability/ Control Display Unit (US/CDU)	Visually Locate Key V-3.7	Verify Correct Status (On) C-1.2	Press Softkey P-2.2	Softkey		.5
Receive	Communication (Crewchief)		C045	Communication (UC)	Receive Auditory Message A-4.9	Verify Secure (Crew Secure) C-5.3				3
Press	HSD Key (2)		C107	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2	Softkey		.5
Press	VSD Key (1)		C225	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2	Softkey		.5

FUNCTION 46 Perform Before Taxi Check

TOTAL TIME (Approximate)

14 Seconds

TASKS			TASK #	SUBSYSTEM(S)	WORKLOAD COMPONENTS				SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT				SENSORY	COGNITIVE	PSYCHOMOTOR			
Press	SYST Key (1)		C195	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2		Softkey	.5
Press	CHECK LISTS Key (1)		C039	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2		Softkey	.5
Press	SEQ Key (1)		C186	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2		Softkey	.5
Press	GET LIST Key (1)		C092	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2		Softkey	.5
Check	Crew		P052	Communication (UC)	Receive Speech Feedback A-4.3	Encode Message (Crew Secure) C-5.3	Press Switch and Speak P-2.2		Springloaded Toggle - 3 Positions (SPT-3)	3
Receive	Communication (Crewchief)		P045	Communication (UC)	Receive Auditory Message A-4.9	Decode Message C-5.3				3
Release	Park Brake		P162	Brakes (FB)	Feel Brake Position K-1	Decide and Verify Correct Position (Unlocked) C-1.2	Push Toe Brakes P-2.2			1
Check	Park Brake Light		C163	Advisory (UAD)	Visually Register Light V-1	Verify Correct Status (Extinguished) C-1.2				1

FUNCTION 47 Perform Cockpit Communication (Copilot) (Coordination) TOTAL TIME (Approximate) 7 Seconds

TASKS			TASK #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT				SENSORY	COGNITIVE	PSYCHOMOTOR		
Transmit	Communication (Copilot)		C043	Communication (UC)	Receive Speech Feedback/ Feel Floor Switch A-4.3/K-1	Encode Message C-5.3		Springloaded Press - 2 Positions (SP-2)	3
Receive	Communication (Pilot)		P047	Communication (UC)	Receive Auditory Message A-4.9	Decode Message C-5.3			3
Transmit	Communication (Pilot)		P049	Communication (UC)	Receive Speech Feedback A-4.3	Encode Message C-5.3	Pull Trigger and Speak P-2.2	Springloaded Trigger (SPTR)	3
Receive	Communication (Copilot)		C041	Communication (UC)	Receive Auditory Message A-4.9	Decode Message C-5.3			3

FUNCTION 48 Perform Cockpit Communication (Copilot) (Normal) TOTAL TIME (Approximate) 5 Seconds

TASKS		TASK #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Transmit	Communication (Copilot) (Normal)	C044	Communication (UC)	Receive Speech Feedback/ Feel Floor Switch A-4.3/K-1	Make Conditioned Association C-1		Springloaded Press - 2 Positions (SP-2)	2
Receive	Communication (Pilot) (Normal)	P048	Communication (UC)	Receive Auditory Message A-4.9	Make Conditioned Association C-1			2
Transmit	Communication (Pilot) (Normal)	P050	Communication (UC)	Receive Speech Feedback A-4.3	Make Conditioned Association C-1	Pull Trigger and Speak P-2.2	Springloaded Trigger (SPTR)	2
Receive	Communication (Copilot) (Normal)	C042	Communication (UC)	Receive Auditory Message A-4.9	Make Conditioned Association C-1			2

FUNCTION 49 Perform Cockpit Communication (Pilot) (Coordination) TOTAL TIME (Approximate) 7 Seconds

TASKS			TASK #	SUBSYSTEM(S)	WORKLOAD COMPONENTS				SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT				SENSORY	COGNITIVE	PSYCHOMOTOR			
Transmit	Communication (Pilot)		P049	Communication (UC)	Receive Speech Feedback A-4.3	Encode Message C-5.3	Pull Trigger and Speak P-2.2		Springloaded Trigger (SPTR)	3
Receive	Communication (Copilot)		C041	Communication (UC)	Receive Auditory Message A-4.9	Decode Message C-5.3				3
Transmit	Communication (Copilot)		C043	Communication (UC)	Receive Speech Feedback/ Feel Floor Switch A-4.3/K-1	Encode Message C-5.3			Springloaded Press - 2 Positions (SP-2)	3
Receive	Communication (Pilot)		P047	Communication (UC)	Receive Auditory Message A-4.9	Decode Message C-5.3				3

FUNCTION 50 Perform Cockpit Communication (Pilot) (Normal) TOTAL TIME (Approximate) 5 Seconds

TASKS			TASK #	SUBSYSTEM(S)	WORKLOAD COMPONENTS				SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT				SENSORY	COGNITIVE	PSYCHOMOTOR			
Transmit	Communication (Pilot) (Normal)		P050	Communication (UC)	Receive Speech Feedback A-4.3	Make Conditioned Association C-1	Pull Trigger and Speak P-2.2		Springloaded Trigger (SPTR)	2
Receive	Communication (Copilot) (Normal)		C042	Communication (UC)	Receive Auditory Message A-4.9	Make Conditioned Association C-1				2
Transmit	Communication (Copilot) (Normal)		C044	Communication (UC)	Receive Speech Feedback/ Feel Floor Switch A-4.3/K-1	Make Conditioned Association C-1			Springloaded Press - 2 Positions (SP-2)	2
Receive	Communication (Pilot) (Normal)		P048	Communication (UC)	Receive Auditory Message A-4.9	Make Conditioned Association C-1				2

FUNCTION 51 Perform External Communication (ATHS)

TOTAL TIME (Approximate) 20.5 Seconds

TASKS			TASK #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT				SENSORY	COGNITIVE	PSYCHOMOTOR		
Press	SYST Key (1)		C195	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2	Softkey	.5
Press	ATHS MENU Key (1)		C020	Communication/Multifunction Display (UC/MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2	Softkey	.5
Press	SEQ MSG Key (1)		C187	Communication/Multifunction Display (UC/MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2	Softkey	.5
Enter	Message		C134	Communication/Control Display Unit (CDU/MFD)	Visually Locate Keys V-3.7	Encode Message C-5.3	Type Entry P-2.2	Softkey	15
Press	Enter Key		C064	Control Display Unit (CDU)	Visually Locate Key V-3.7	Verify Key Selected C-1.2	Press Softkey P-2.2	Softkey	.5
Press	XMIT MSG Key (1)		C229	Communication/Control Display Unit (UC/CDU)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2	Softkey	.5

FUNCTION 52 Perform External Communication (Frequency Change) TOTAL TIME (Approximate) 22.5 Seconds

TASKS			TASK #	SUBSYSTEM(S)	WORKLOAD COMPONENTS				SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT				SENSORY	COGNITIVE		PSYCHOMOTOR		
Press	COMM Key (1)		C040	Communication/ Multifunction Display (UC/MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2		Press Softkey P-2.2	Softkey	.5
Press	UHF COMM Key (1)		C214	Communication/ Multifunction Display (UC/MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2		Press Softkey P-2.2	Softkey	.5
Press	UHF LIST Key (1)		C215	Communication/ Multifunction Display (UC/MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2		Press Softkey P-2.2		.5
Press	SEQ CHAN Key (1)		C185	Communication/ Multifunction Display (UC/MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2		Press Softkey P-2.2		2
Press	TUNE UHF 1 Key (1)		C210	Communication/ Multifunction Display (UC/MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2		Press Softkey P-2.2		.5
Press	RTN Key (1)		C183	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2		Press Softkey P-2.2		.5
Transmit	Message (Brief)		C140	Communication (UC)	Receive Speech Feedback A-4.3	Encode Message C-5.3		Press Switch and Speak P-2.2	Springloaded (SP)	4
Receive	Acknowledgment		C002	Communication (UC)	Receive Auditory Message A-4.9	Make Conditioned Association C-1				2

FUNCTION 52 Perform External Communication (Frequency Change) [Continued]

TASKS			TASK #	SUBSYSTEM(S)	WORKLOAD COMPONENTS				SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT				SENSORY	COGNITIVE	PSYCHOMOTOR			
Transmit	Message (Brief)		C140	Communication (UC)	Receive Speech Feedback A-4.3	Encode Message C-5.3	Press Switch and Speak P-2.2		Springloaded (SP)	4
Receive	Acknowledgment		C002	Communication (UC)	Receive Auditory Message A-4.9	Make Conditioned Association C-1				2

FUNCTION 53 Perform External Communication (Receive Coordination) TOTAL TIME (Approximate) 13 Seconds

TASKS			TASK #	SUBSYSTEM(S)	WORKLOAD COMPONENTS				SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT				SENSORY	COGNITIVE	PSYCHOMOTOR			
Receive	Message Alert		C139	Communication (UC)	Receive Auditory Message A-4.9	Decode Message C-5.3				2
Transmit	Acknowledgment		C003	Communication (UC)	Receive Speech Feedback A-4.3	Encode Message C-5.3	Press Switch and Speak P-2.2		Springloaded Press - 2 Positions (SP-2)	2
Receive	Message		C136	Communication (UC)	Receive Auditory Message A-4.9	Decode Message C-5.3				5
Transmit	Acknowledgment		C003	Communication (UC)	Receive Speech Feedback A-4.3	Encode Message C-5.3	Press Switch and Speak P-2.2		Springloaded Press - 2 Positions (SP-2)	2

FUNCTION 54 Perform External Communication (Transmit Code)

TOTAL TIME (Approximate)

14 Seconds

TASKS			TASK #	SUBSYSTEM(S)	WORKLOAD COMPONENTS				SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT	SENSORY			COGNITIVE	PSYCHOMOTOR				
Transmit	Message	C137	Communication (UC)	Receive Speech Feedback A-4.3	Make Conditioned Association C-1	Press Switch and Speak P-2.2	Springloaded Press - 2 Positions (SP-2)	3		
Receive	Acknowledgment	C002	Communication (UC)	Receive Auditory Message A-4.9	Make Conditioned Association C-1			2		
Transmit	Message	C137	Communication (UC)	Receive Speech Feedback A-4.3	Make Conditioned Association C-1	Press Switch and Speak P-2.2	Springloaded Press - 2 Positions (SP-2)	5		
Receive	Acknowledgment	C002	Communication (UC)	Receive Auditory Message A-4.3	Make Conditioned Association C-1			2		

FUNCTION 55 Perform Hover Check [NVG] TOTAL TIME (Approximate) 34 Seconds*

TASKS			TASK #	SUBSYSTEM(S)	WORKLOAD COMPONENTS				SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT				SENSORY	COGNITIVE	PSYCHOMOTOR			
Control	Altitude [NVG]		P016	Flight Control (FC)	Feel Control Movements K-7	Make Conditioned Association (Adjustment Needed) C-1	Control Pressure P-2.6			1
Control	Attitude [NVG]		P023	Flight Control (FC)	Feel Control Movements K-7	Make Conditioned Association (Adjustment Needed) C-1	Control Pressure P-2.6			1
Control	Heading [NVG]		P102	Flight Control (FC)	Feel Control Movements K-7	Make Conditioned Association (Adjustment Needed) C-1	Control Pressure P-2.6			1
Control	Drift [NVG]		P060	Flight Control (FC)	Feel Control Movements K-7	Make Conditioned Association (Adjustment Needed) C-1	Control Pressure P-2.6			1
Maintain	Obstacle Clearance [NVG]		P159	Flight Control/Night Vision Goggles (FC/NVG)	Feel Control Movements/Visually Orient Aircraft K-7/G-5	Make Conditioned Association (Adjustment Needed) C-1	Control Pressure P-2.6			1
Check	Obstacle Clearance [NVG]		C158	Night Vision Goggles (VG)	Visually Register Obstacles G-1	Make Conditioned Association (Aircraft Clear) C-1				3
Press	INST Key (4)		P116	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2	Softkey		5
Check	Flight Controls (Hover) [NVG]		P070	Night Vision Goggles (VG)	Visually Detect Aircraft Movement G-1	Verify Correct Status (Correct Control Response) C-3.7				10

*Since some of the tasks are performed concurrently, the total time for the function is greater than the sum of the length of the individual tasks.

FUNCTION 55 Perform Hover Check [NVG] [Continued]

TASKS			TASK #	SUBSYSTEM(S)	WORKLOAD COMPONENTS				SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT				SENSORY	COGNITIVE	PSYCHOMOTOR			
Check	Engine Indications (Hover)		P063	Engine/Multifunction Display (EN/MFD)	Visually Scan Indications V-7	Inspect Sensory and Symbolic Readouts and Verify Correct Status (Readouts Within Limits) C-3.7				5
Check	Flight Symbology (Hover)		P074	ANVIS Symbology/Multifunction Display (ANV/MFD)	Visually Scan Symbology V-7	Inspect Sensory and Symbolic Readouts and Verify Correct Status (Correct Response) C-3.7				10
Perform	Power Check (Hover)		P165	Engine (EN)	Visually Check Instrument Indications V-4	Interpret Sensory and Symbolic Readouts (Note Torque and N1) C-3.7				5
Press	HSD Key (4)		P107	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2	Softkey		.5

FUNCTION 56 Perform Hover [NVG]

TOTAL TIME (Approximate)

220 Seconds*

TASKS			TASK #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT				SENSORY	COGNITIVE	PSYCHOMOTOR		
Control	Altitude [NVG]		P016	Flight Control (FC)	Feel Control Movements K-7	Make Conditioned Association (Adjustment Needed) C-1	Control Pressure P-2.6		1
Control	Attitude [NVG]		P023	Flight Control (FC)	Feel Control Movements K-7	Make Conditioned Association (Adjustment Needed) C-1	Control Pressure P-2.6		1
Control	Heading [NVG]		P102	Flight Control (FC)	Feel Control Movements K-7	Make Conditioned Association (Adjustment Needed) C-1	Control Pressure P-2.6		1
Control	Drift [NVG]		P060	Flight Control (FC)	Feel Control Movements K-7	Make Conditioned Association (Adjustment Needed) C-1	Control Pressure P-2.6		1
Maintain	Obstacle Clearance [NVG]		P159	Flight Control/Night Vision Goggles (FC/NVG)	Feel Control Movements/ Visually Orient Aircraft K-7/G-5	Make Conditioned Association (Adjustment Needed) C-1	Control Pressure P-2.6		1
Check	Obstacle Clearance [NVG]		C158	Night Vision Goggles (NVG)	Visually Register Obstacles G-1	Make Conditioned Association (Aircraft Clear) C-1			3

*Since some of the tasks are performed randomly, the total time for the function is greater than the sum of the length of the individual tasks.

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FUNCTION 57 Perform IFF Procedures

TOTAL TIME (Approximate)

10.5 Seconds

TASKS			SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT	TASK #		SENSORY	COGNITIVE	PSYCHOMOTOR		
Press	IFF Key (1)	C110	Multifunction Display/Transponder (MFD/TP)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2	Softkey	.5
Press	IFF MODE Key (1)	C111	Multifunction Display/Transponder (MFD/TP)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2	Softkey	.5
Check	IFF Code	C109	Control Display Unit/Transponder (CDU/TP)	Visually Inspect Readout V-4.0	Interpret Sensory and Symbolic Readout and Verify Correct Status (Correct Code) C-3.7			5
Press	IFF NORM/STBY Key (1)	C112	Multifunction Display/Transponder (MFD/TP)	Visually Locate Key V-3.7	Verify Correct Status (NORM) C-1.2	Press Softkey P-2.2	Softkey	.5
Press	BCN OPER Key (1)	C027	Multifunction Display/Transponder (MFD/TP)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2	Softkey	.5
Press	RTN Key (1)	C183	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2	Softkey	.5

FUNCTION 58 Perform Navigation [NVG] TOTAL TIME (Approximate) Continuous*

TASKS			TASK #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT				SENSORY	COGNITIVE	PSYCHOMOTOR		
Interpret	Map Features		C130	Maps/Multifunction Display (NM/MFD)	Visually Discriminate Terrain V-3.7	Interpret Sensory Feedback and Make Judgment C-6.8			8
Verify	Flight Path [NVG]		C072	Night Vision Goggles (VG)	Visually Search External Field of View G-7	Interpret Sensory Feedback and Make Judgment (Adjustment Needed) C-6.8			10
Check	Heading		C098	Multifunction Display (MFD)	Read Heading Indicator V-5.9	Verify Correct Heading C-1.2			.5
Check	Course Display		C051	Multifunction Display (MFD)	Visually Discriminate Symbolic Display V-3.7	Verify Correct Status (On Course) C-1.2			5
Verify	Flight Path (FLIR) (1)		C071	Forward-Looking Infrared (FLIR) (FLR)	Visually Search FLIR Image V-7	Interpret Sensory Feedback and Make Judgment (Adjustment Needed) C-6.8			10

*The total time for the function will vary depending on the length of the segment.

FUNCTION 59 Perform Navigation (RADAR) TOTAL TIME (Approximate) 17.5 Seconds

T A S K S			TASK #	SUBSYSTEM(S)	W O R K L O A D C O M P O N E N T S			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT				SENSORY	COGNITIVE	PSYCHOMOTOR		
Press	RADAR Key (1)		C171	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2		.5
Verify	Flight Path (RADAR)		C073	RADAR (NRA)	Visually Scan Sensor Image V-7	Interpret Sensory Feedback and Make Judgment (Adjustment Needed) C-6.8			15
Press	FLIR Key (1)		C077	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2		.5

FUNCTION 60 Perform Rendezvous Check

TOTAL TIME (Approximate) 7.5 Seconds

TASKS			TASK #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT				SENSORY	COGNITIVE	PSYCHOMOTOR		
Press	NAV AIDS Key (1)		C 149	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2	Softkey	.5
Press	TCN BRG Key (1)		C 202	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2	Softkey	.5
Press	TCN A/R Key (1)		C 201	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2	Softkey	.5
Check	TACAN Channel		C 197	Control Display Unit (CDU)	Visually Check Symbolic Indications V-4	Interpret Sensory and Symbolic Readout and Verify Correct Status (Channel Correct) C-3.7			3
Press	RTN Key (1)		C 183	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2	Softkey	.5

TOTAL TIME (Approximate) 62.5 Seconds

FUNCTION 61 Perform Rendezvous [NVG]

TASKS			SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT	TASK #		SENSORY	COGNITIVE	PSYCHOMOTOR		
Press	SYST Key (1)	C195	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2	Softkey	.5
Press	CHECK LISTS Key (1)	C039	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2	Softkey	.5
Press	SEQ Key (1)	C186	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2	Softkey	.5
Press	GET LIST Key (1)	C092	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2	Softkey	.5
Set	Lights	C123	Lighting (UL)	Visually Check Switch Positions and Placement of Switches V-4	Decide Desired Position C-1.2	Move Switches P-2.2		6
Set	Refuel Panel	C177	Fuel (EF)	Visually Check Switch Positions and Placement of Switches V-4	Decide Desired Position C-1.2	Move Switches P-2.2		10
Press	VSD Key (1)	C225	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2	Softkey	.5
Locate	Tanker [NVG]	B200	Night Vision Goggles (VG)	Visually Detect Image G-1	Evaluate Sensory Information and Make Judgment (Tanker) C-4.6			40

FUNCTION 62 Perform Taxi [NVG]

TOTAL TIME (Approximate) 180.5 Seconds*

TASKS			TASK #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT				SENSORY	COGNITIVE	PSYCHOMOTOR		
Control	Forward Motion (Taxi) [NVG]		P081	Brakes/Flight Control (FB/FC)	Feel Pedal Movements K-7	Make Conditioned Association (Adjustment Needed) C-1	Press Toe Brakes P-2.6		.5
Control	Heading (Taxi) [NVG]		P103	Gear/Flight Control (FG/FC)	Feel Pedal Movements K-7	Make Conditioned Association (Adjustment Needed) C-1	Control Pressure P-2.6		.5
Maintain	Obstacle Clearance [NVG]		P159	Flight Control/Night Vision Goggles (FC/NVG)	Feel Control Movements/ Visually Orient Aircraft K-7/G-5	Make Conditioned Association (Adjustment Needed) C-1	Control Pressure P-2.6		.5
Check	Obstacle Clearance [NVG]		C158	Night Vision Goggles (NVG)	Visually Register Obstacles G-1	Make Conditioned Association (Aircraft Clear) C-1			3

*Since some of the tasks are performed randomly, the total time for the function is greater than the sum of the length of the individual tasks.

FUNCTION 63 Perform Taxiing Check

TOTAL TIME (Approximate) 24.5 Seconds

TASKS			TASK #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT				SENSORY	COGNITIVE	PSYCHOMOTOR		
Check	Brakes (Pilot)		P032	Brakes (FB)	Feel Control Movement and Feel Brake Position K-7	Verify Correct Status C-1.2	Press Toe Brakes P-2.2		5
Check	Brakes (Copilot)		C031	Brakes (FB)	Feel Brake Position K-1	Verify Correct Status C-1.2	Press Toe Brakes P-2.2		5
Set	TAILWHEEL Switch		C199	Gear (FG)	Visually Locate Switch V-3.7	Decide Correct Position (Unlock) C-1.2	Press Switch P-2.2	Springloaded Press (SP)	1
Check	Tailwheel Advisory Light		C198	Advisory (UAD)	Visually Register Light V-1	Verify Correct Status C-1.2			1
Check	Steering		P192	Gear (FG)	Feel Pedal Movement/ Visually Detect Aircraft Movement G-1	Verify Correct Status C-1.2	Control Pressure P-2.6		10

FUNCTION 64 Program Transponder

TOTAL TIME (Approximate)

7 Seconds

TASKS			TASK #	SUBSYSTEM(S)	WORKLOAD COMPONENTS				SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT				SENSORY	COGNITIVE	PSYCHOMOTOR			
Press	IFF Key (2)		C110	Transponder/ Multifunction Display (TP/MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2		Softkey	.5
Press	MODE 1 Key (2)		C143	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status (ON) C-1.2	Press Softkey P-2.2		Softkey	.5
Press	MODE 3A Key (2)		C145	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status (ON) C-1.2	Press Softkey P-2.2		Softkey	.5
Press	MODE C Key (2)		C146	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status (ON) C-1.2	Press Softkey P-2.2		Softkey	.5
Press	MODE 2 Key (2)		C144	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status (ON) C-1.2	Press Softkey P-2.2		Softkey	.5
Press	IFF NORM/STBY Key (2)		C112	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status (STBY) C-1.2	Press Softkey P-2.2		Softkey	.5
Press	RTN Key (2)		C183	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2		Softkey	.5

FUNCTION 65 Respond to Threat [NVG]

TOTAL TIME (Approximate)

60 Seconds*

TASKS		TASK #	WORKLOAD COMPONENTS				SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT		SUBSYSTEM(S)	SENSORY	COGNITIVE	PSYCHOMOTOR		
Detect	Threat	B204	Survivability (US)	Detect Audio Difference/ Detect Visual Image A-6.6/V-1	Recognize Visual Signal (Threat Direction) C-3.7			3
Press	ASE Key	C019	Survivability/Control Display Unit (US/CDU)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2	Softkey	.5
Check	MASTER Key	C132	Survivability/Multifunction Display (US/MFD)	Visually Check Status V-3.7	Verify Correct Status (On) C-1.2			1
Press	STR Key (1)	C193	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2	Softkey	.5
Press	FLY OVER STR Key (1)	C079	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2	Softkey	.5
Enter	Threat Information	C205	Control Display Unit (CDU)	Visually Locate Keys on Keypad V-3.7	Encode Data C-5.3	Type Entry P-7	Springloaded Press (SP)	30
Press	RTT Key (1)	C183	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2	Softkey	.5
Perform	Hard Turns [NVG]	P096	Flight Control/Night Vision Goggles (FC/VG)	Feel Control Movements/ Visually Orient Aircraft K-7/G-5	Make Conditioned Association (Adjustment Needed) C-1	Control Pressure P-2.6		4

*Since some of the tasks are performed randomly, the total time for the function is greater than the sum of the length of the individual tasks.

FUNCTION 65 Respond to Threat [NVG] [Continued]

TASKS			TASK #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT				SENSORY	COGNITIVE	PSYCHOMOTOR		
Change	Altitude Sharply [NVG]		P017	Flight Control/Night Vision Goggles (FC/NVG)	Feel Control Movements/Visually Detect Aircraft Movement K-7/G-5	Make Conditioned Association (Adjustment Needed) C-1	Control Pressure P-2.6		4
Change	Airspeed Quickly [NVG]		P012	Flight Control/Night Vision Goggles (FC/NVG)	Feel Control Movements/Visually Detect Aircraft Movement K-7/G-5	Make Conditioned Association (Adjustment Needed) C-1	Control Pressure P-2.6		4

FUNCTION 66 Set Up Communication Radios TOTAL TIME (Approximate) 19 Seconds

TASKS			TASK #	SUBSYSTEM(S)	WORKLOAD COMPONENTS				SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT				SENSORY	COGNITIVE	PSYCHOMOTOR			
Press	COMM Key (2)		C040	Communication/ Multifunction Display (UC/MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2		Softkey	.5
Press	VHF 2 Key (2)		C222	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status (Sec) C-1.2	Press Softkey P-2.2		Softkey	.5
Press	SQL Key (2)		C190	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status (On) C-1.2	Press Softkey P-2.2		Softkey	.5
Press	VHF 1 Key (2)		C221	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status (Sec) C-1.2	Press Softkey P-2.2		Softkey	.5
Press	SQL Key (2)		C190	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status (On) C-1.2	Press Softkey P-2.2		Softkey	.5
Press	VHF LIST Key (2)		C223	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2		Softkey	.5
Press	CHAN Key (2)		C038	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2		Softkey	.5
Press	TUNE VHF 1 Key (2)		C211	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2		Softkey	.5

FUNCTION 66 Set Up Communication Radios (Continued)

TASKS			TASK #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT	SENSORY			COGNITIVE	PSYCHOMOTOR			
Press	CHAN Key (2)	C038	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2	Softkey	.5	
Press	TUNE VHF 2 Key (2)	C212	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2	Softkey	.5	
Press	HF COMM Key (2)	C104	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2	Softkey	.5	
Press	HF LIST Key (2)	C105	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2	Softkey	.5	
Press	CHAN Key (2)	C038	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2	Softkey	.5	
Press	TUNE HF Key (2)	C209	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2	Softkey	.5	
Press	UHF COMM Key (2)	C214	Communication/ Multifunction Display (UC/MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2	Softkey	.5	
Press	UHF LIST Key (2)	C215	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2	Softkey	.5	

FUNCTION 66 Set Up Communication Radios [Continued]

TASKS			TASK #	SUBSYSTEM(S)	WORKLOAD COMPONENTS				SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT				SENSORY	COGNITIVE	PSYCHOMOTOR			
Press	CHAN Key (2)		C038	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2		Softkey	.5
Press	TUNE UHF 1 Key (2)		C210	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2		Softkey	.5
Press	SEC Key (2)		C184	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status (Sec) C-1.2	Press Softkey P-2.2		Softkey	.5
Press	RTN Key (2)		C183	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2		Softkey	.5

MH-60K FUNCTION ANALYSIS WORKSHEET

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FUNCTION 67 Unload Aircraft (Internal)

TOTAL TIME (Approximate)

21 Seconds

TASKS			TASK #	SUBSYSTEM(S)	WORKLOAD COMPONENTS				SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT				SENSORY	COGNITIVE	PSYCHOMOTOR			
Monitor	Unloading		C216	Cargo (UCA)	Visually Scan Cargo Compartment V-7	Verify Correct Procedure C-1.2	Move Head P-2.6			10
Verify	Unloading Complete		C217	Communication (UC)	Receive Auditory Message A-4.9	Decode Message C-5.3				3
Transmit	Communication (Crewchief)		C046	Communication (UC)	Receive Speech Feedback A-4.3	Encode Message (Door Check) C-5.3	Press Switch and Speak P-2.2	Springloaded Press - 2 Positions (SP-2)		3
Receive	Communication (Crewchief)		C045	Communication (UC)	Receive Auditory Message A-4.9	Decode Message C-5.3				3

TOTAL TIME (Approximate) 21.5 Seconds

FUNCTION 68 Update Navigation (FLIR)

TASKS			TASK #	SUBSYSTEM(S)	WORKLOAD COMPONENTS				SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT				SENSORY	COGNITIVE	PSYCHOMOTOR			
Press	FLIR Key (2)		C077	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Touch Softkey P-2.2		Softkey	.5
Press	PT Key (2)		C169	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Touch Softkey P-2.2		Softkey	.5
Press	UPD Key (2)		C218	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Touch Softkey P-2.2		Softkey	.5
Press	SLEW Key (2)		C188	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Touch Softkey P-2.2		Softkey	.5
Set	FOV Scale Switch (2)		C084	Multifunction Display/Forward-Looking Infrared (MFD/FLIR)	Feel Switch Movement/Visually Detect Sensor Images K-1/V-1	Decide Correct Position and Verify Correct Image C-1.2	Move Switch P-2.2		Slide - 2 Positions	1
Identify	Landmark (FLIR)		C117	Maps/Multifunction Display (NM/MFD)	Visually Discriminate Terrain V-3.7	Interpret Sensory Feedback and Make Judgment C-6.8				5
Slew	Update Cursor		C219	Multimode Controller/Multifunction Display (MC/MFD)	Feel Switch Movement/Visually Align Symbol K-6.7/V-5.0	Verify Symbol Position Correct C-1.2	Manipulate Thumbwheel P-4		Springloaded Center Thumbwheel - 5 Positions	4
Pull	Mode Trigger		C147	Multimode Controller (MC)	Feel Trigger Movement K-1	Verify Correct Position (Second Detent) C-1.2	Pull Trigger P-2.2			.5

FUNCTION 68 Update Navigation (FLIR) [Continued]

TASKS			TASK #	SUBSYSTEM(S)	WORKLOAD COMPONENTS				SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT				SENSORY	COGNITIVE		PSYCHOMOTOR		
Release	Mode Trigger		C148	Multimode Controller (MC)	Feel Trigger Movement K-1	Verify Correct Position C-1.2		Release Trigger P-2.2		.5
Press	SNSR UPD Key (2)		C189	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2		Press Softkey P-2.2	Softkey	.5
Press	ACC Key (2)		C001	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2		Press Softkey P-2.2	Softkey	.5
Press	RTN Key (2)		C183	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2		Press Softkey P-2.2	Softkey	.5
Press	MAP Key (2)		C131	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2		Press Softkey P-2.2	Softkey	.5

FUNCTION 69 Update Navigation (LZ)

TOTAL TIME (Approximate)

9.5 Seconds

TASKS			TASK #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT				SENSORY	COGNITIVE	PSYCHOMOTOR		
Press	UPD Key (2)		C218	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Touch Softkey P-2.2	Softkey	.5
Enter	NRP Number		C157	Control Display Unit (CDU)	Visually Locate Keys and Read Symbolic Display V-5.9	Encode and Verify Correct Entry (NRP) C-5.3	Type Entry P-2.2	Softkey	5
Press	FLY OVER UPD Key (2)		C080	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2	Softkey	.5
Press	ACC Key (2)		C001	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2	Softkey	.5
Press	RTN Key (2)		C183	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2	Softkey	.5

FUNCTION 70 Update Navigation (Mission Change)

TOTAL TIME (Approximate) 132.5 Seconds*

TASKS			TASK #	SUBSYSTEM(S)	WORKLOAD COMPONENTS				SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT				SENSORY	COGNITIVE	PSYCHOMOTOR			
Press	STR Key (2)		C 193	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2		Softkey	.5
Press	LOOK AHD Key (2)		C 127	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2		Softkey	.5
Press	RNG Key (2)		C 180	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2		Softkey	.5
Scan	Map Display (2)		C 128	Maps/Multifunction Display (NIM/MFD)	Visually Scan Imagery V-7	Interpret Sensory Feedback and Make Judgment C-6.8				10
Identify	Landmark (Map)		C 118	Maps/Multifunction Display (NIM/MFD)	Visually Discriminate Terrain V-3.7	Interpret Sensory Feedback and Make Judgment C-6.8				5
Press	SLEW Key (2)		C 188	Multimode Controller/Multifunction Display (MC/MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2		Softkey	.5
Slew	Update Cursor		C 219	Multimode Controller/Multifunction Display (MC/MFD)	Feel Switch Movement/Visually Align Symbol K-6.7/V-5.0	Verify Symbol Position Correct C-1.2	Manipulate Thumbwheel P-4		Springloaded Center Thumbwheel - 5 Positions	4
Pull	Mode Trigger		C 147	Multimode Controller (MC)	Feel Trigger Movement K-1	Verify Correct Position (Second Detent) C-1.2	Pull Trigger P-2.2			.5

*Time required to establish three waypoints.

FUNCTION 70 Update Navigation (Mission Change) [Continued]

TASKS			TASK #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT	SENSORY			COGNITIVE	PSYCHOMOTOR			
Release	Mode Trigger	C148	Multimode Controller (MC)	Feel Trigger Movement K-1	Verify Correct Position C-1.2	Release Trigger P-2.2			.5
Enter	New NRP Number	C152	Control Display Unit (CDU)	Visually Locate Keys and Read Symbolic Display V-5.9	Encode and Verify Correct Entry C-5.3	Type Entry P-2.2	Softkey		4
Enter	NRP Data	C156	Control Display Unit (CDU)	Visually Locate Keys and Read Symbolic Display V-5.9	Encode and Verify Correct Entry C-5.3	Type Entry P-2.2	Softkey		7
Press	STR NRP Key (2)	C194	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2	Softkey		.5
Scan	Map Display (2)	C128	Maps/Multifunction Display (NMMFD)	Visually Scan Imagery V-7	Interpret Sensory Feedback and Make Judgment C-6.8				10
Identify	Landmark (Map)	C118	Maps/Multifunction Display (NMMFD)	Visually Discriminate Terrain V-3.7	Interpret Sensory Feedback and Make Judgment (New NRP) C-6.8				5
Slew	Update Cursor	C219	Multimode Controller/ Multifunction Display (MC/MFD)	Feel Switch Movement/ Visually Align Symbol K-6.7/V-5.0	Verify Symbol Position Correct C-1.2	Manipulate Thumbwheel P-4	Springloaded Center Thumbwheel - 5 Positions		4
Pull	Mode Trigger	C147	Multimode Controller (MC)	Feel Trigger Movement K-1	Verify Correct Position C-1.2	Pull Trigger P-2.2			.5

FUNCTION 70 Update Navigation (Mission Change) [Continued]

TASKS			TASK #	SUBSYSTEM(S)	WORKLOAD COMPONENTS				SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT				SENSORY	COGNITIVE	PSYCHOMOTOR			
Release	Mode Trigger		C148	Multimode Controller (MC)	Feel Trigger Movement K-1	Verify Correct Position C-1.2	Release Trigger P-2.2			.5
Enter	New NRP Number		C152	Control Display Unit (CDU)	Visually Locate Keys and Read Symbolic Display V-5.9	Encode and Verify Correct Entry C-5.3	Type Entry P-2.2	Softkey		4
Enter	NRP Data		C156	Control Display Unit (CDU)	Visually Locate Keys and Read Symbolic Display V-5.9	Encode and Verify Correct Entry C-5.3	Press Softkey P-2.2	Softkey		7
Press	STR NRP Key (2)		C194	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2	Softkey		.5
Scan	Map Display (2)		C128	Maps/Multifunction Display (NM/MFD)	Visually Scan Imagery V-7	Interpret Sensory Feedback and Make Judgment C-6.8				10
Identify	Landmark (Map)		C118	Maps/Multifunction Display (NM/MFD)	Visually Discriminate Terrain V-3.7	Interpret Sensory Feedback and Make Judgment (New NRP) C-6.8				5
Slew	Update Cursor		C219	Multimode Controller/Multifunction Display (MC/MFD)	Feel Switch Movement/Visually Align Symbol K-6.7/V-5.0	Verify Symbol Position Correct C-1.2	Manipulate Thumbwheel P-4	Springloaded Center Thumbwheel - 5 Positions		4
Pull	Mode Trigger		C147	Multimode Controller (MC)	Feel Trigger Movement K-1	Verify Correct Position (Second Detent) C-1.2	Pull Trigger P-2.2			.5
Release	Mode Trigger		C148	Multimode Controller (MC)	Feel Trigger Movement K-1	Verify Correct Position C-1.2	Release Trigger P-2.2			.5

FUNCTION 70 Update Navigation (Mission Change) [Continued]

TASKS			TASK #	SUBSYSTEM(S)	WORKLOAD COMPONENTS				SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT				SENSORY	COGNITIVE	PSYCHOMOTOR			
Enter	New NRP Number		C152	Control Display Unit (CDU)	Visually Locate Keys and Read Symbolic Display V-5.9	Encode and Verify Correct Entry C-5.3	Type Entry P-2.2		Softkey	4
Enter	NRP Data		C156	Control Display Unit (CDU)	Visually Locate Keys and Read Symbolic Display V-5.9	Encode and Verify Correct Entry C-5.3	Press Softkey P-2.2		Softkey	7
Press	STR NRP Key (2)		C194	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2		Softkey	5
Press	SYST Key (2)		C195	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2		Softkey	5
Press	FPLN Key (2)		C085	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2		Softkey	5
Press	LEG ADD Key (2)		C119	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2		Softkey	5
Press	LEGS Key (2)		C122	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2		Softkey	5
Press	DISPLAY LEG Key		C059	Control Display Unit (CDU)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2		Softkey	5

FUNCTION 70 Update Navigation (Mission Change) [Continued]

TASKS			TASK #	SUBSYSTEM(S)	WORKLOAD COMPONENTS				SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT				SENSORY	COGNITIVE	PSYCHOMOTOR			
Enter	Leg Data		C120	Control Display Unit (CDU)	Visually Locate Keys and Read Symbolic Display V-5.9	Encode and Verify Correct Entry C-5.3	Type Entry P-2.2		Softkey	7
Press	LEG MOD Key (2)		C121	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2		Softkey	.5
Press	FUEL/POWER Key (2)		C091	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2		Softkey	.5
Check	Fuel Summary		C090	Fuel/Multifunction Display (EF/MFD)	Visually Inspect Symbolic Indication V-4	Interpret Symbolic Readout (Quantity) and Make Judgment (Enough Fuel) C-6.8				6
Press	HSD Key (2)		C107	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2		Softkey	.5

FUNCTION 71 Update Navigation (NRP)

TOTAL TIME (Approximate)

12.5 Seconds

TASKS			TASK #	SUBSYSTEM(S)	WORKLOAD COMPONENTS				SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT				SENSORY	COGNITIVE	PSYCHOMOTOR			
Press	TA Key (1)		C196	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2		Softkey	.5
Press	UPD Key (1)		C218	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2		Softkey	.5
Press	SLEW Key (1)		C188	Multimode Controller/Multifunction Display (MC/MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2		Softkey	.5
Verify	NRP		C155	Multifunction Display/Navigation (MFD/NA)	Visually Discriminate Symbolology V-3.7	Interpret Sensory Feedback and Make Judgment (Delta) C-6.8				5
Press	SNRSR UPD Key (1)		C189	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2		Softkey	.5
Press	ACC Key (1)		C001	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2		Softkey	.5
Press	RTN Key (1)		C183	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2		Softkey	.5
Press	GM/TF Key (1)		C093	Multifunction Display (MFD)	Visually Locate Key V-3.7	Verify Correct Status C-1.2	Press Softkey P-2.2		Softkey	.5